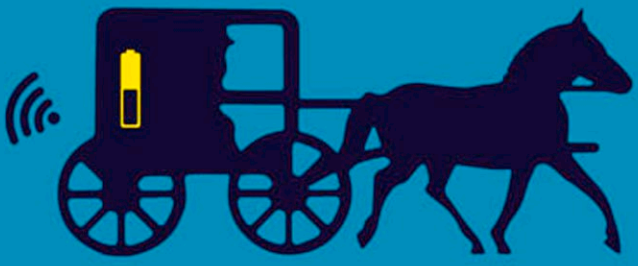
Virtually Amish



Preserving Community at the Internet's Margins

Lindsay Ems

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VIRTUALLY AMISH

PRESERVING COMMUNITY AT THE INTERNET'S MARGINS

LINDSAY EMS

The MIT Press
Cambridge, Massachusetts
London, England

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1

HAPPIEST IN THE MARGINS: AMISH APPROACHES TO PARTICIPATION IN HIGH-TECH CAPITALISM

Noah[1] is a fifty-seven-year-old Amish entrepreneur, minister, and self-proclaimed technology buff. I met him by chance on a short trip to an Amish settlement in March 2011. Having recently read about Amish approaches to technology, I was curious about their rejection of new communication tools like the internet. My mother accompanied me to the settlement, where I was hoping to find someone to talk with and have a look around. Stopping for lunch in an Amish-owned café, we began chatting with Noah, who was an owner of the café. Business in the café was slow that day, and Noah seemed intrigued by the topics I was curious about. He told me that the church leadership in his community was currently engaged in a heated debate about whether or not cell phones should be used by its members. If they were to be allowed, church leaders must decide *how* they should be used.

When I learned that Noah owned multiple businesses, I asked whether he had a website for them and was surprised when he said, "Yes, we're actually on our second website. The new one has SEO,[2] social media, and online purchasing." My preconceived notions that the Old Order Amish generally rejected digital technologies such as smartphones, computers, and the internet quickly faded into question marks. I had come to Noah's settlement in an effort to learn from the Amish about how the rejection of modern technology affected their community's well-being. In a world where smartphones, mobile devices, and near-constant connectivity to the internet seemed to be making people more anxious, overworked, and unhealthy, I sought answers from people who were presumably opting out of the fast-paced, always on, hyperconnected way of life. Noah's tech savvy suggested that there was much more to learn about how and why Amish people were making use of digital technologies today.

At the end of my conversation with Noah, he agreed to help connect me with other people that he knew so that I could learn more. Noah used his

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smartphone in communicating with me to coordinate our future meetings, and I observed him using it extensively to discuss business and personal matters. As we got to know each other, we also emailed from time to time, talked on the phone about the social impacts of digital technologies, and even texted back and forth. I was surprised one day when I was asked to approve Noah's Facebook friend request. I became his seventh friend. After observing Noah's familiarity and fluency with a panoply of twenty-first-century technologies, I wanted to find out how his Amish peers and fellow church leaders were feeling about this.

When observed from a distance, it might seem that there is an air of hypocrisy or a lack of integrity in Amish decisions to use digital technologies. My conversations with Amish church and business leaders, however, reveal a complex but calculated set of strategies in place to guide the use of technologies in ways that allow members to physically sustain themselves and abide by their religious moral values in a high-tech world, from which they increasingly cannot opt out. I learned that there is much to discover beneath the surface of Amish discussions about technology adoption, because they represent larger, more complex tensions in communities between holding on to Amish traditions and changing with the times. Furthermore, there are lessons that we can learn from the Amish, who consider their own cultural, social, political, and religious autonomy in deciding how to engage with a broader social and economic system, because technologies are essential to the mediation of these relationships. In particular, Amish communities are in the process of determining how to navigate the social forces that have come along with what theorists such as Shoshana Zuboff (2019) call *high-tech capitalism*. Amish people describe technologies as both functional tools and symbols of engagement with and resistance to the external social world. Digital technologies are literally and figuratively bridges that connect their separatist communities to an alternative reality that they believe has the potential to erode their culture and religion from the outside in. Thus, decisions about technology adoption are multilayered, complex, dynamic, and contested. For the Amish, really understanding the functionality *and* potential social impacts of their tools is essential to deciding whether or not to adopt them. These decisions are productive sites of struggle that enable the Amish to create and sustain a dynamic social and cultural sanctuary where their way of life can thrive while resisting the disempowering aspects of the world around them.

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This book aims to illustrate how members of Old Order Amish communities calibrate their use of communication technologies strategically in an effort to resist macrolevel social forces that work to fragment people in their communities from nature, religion, and each other. Many social theorists have also noted what the Amish seek to resist in the world around them. Namely, information technology works to amplify certain negative impacts of capitalism on people's lives. For example, they alter and accelerate our experience of time (Virilio 2006) and place by fragmenting people from nature (Brende 2005; Borgmann 1984) and each other (Putnam 2000; Sennett 1998, Zuboff 2019). Digital technologies contribute to the alienation of workers by making their labor invisible (Dyer-Witheford 1999; Gray and Suri 2019) and underpaid (Duffy 2017; Geissler 2014). The everyday lived experience of people working in a capitalist economy that is increasingly fueled by high technology is characterized by increased stress and anxiety (Rosen et al. 2012), increased feelings of loneliness (DiJulio et al. 2018), and an inability to fashion a long-term narrative of one's life (Sennett 1998). Importantly, analysts have noted that these negative experiences result from an inability to opt out of participation in a larger social and economic structure where power is intentionally asymmetrically distributed, and the most oppressed and marginalized people in society more acutely experience all these negative impacts (Castells 2009; Eubanks 2012, 2019; Noble 2018; O'Neil 2016; Tufekci 2017; Yueng 2019). The few individuals who have the most power in society own and program the infrastructures that undergird the high-tech economy by collecting user data and using it to further strengthen their power and control. These masters of digital capitalism stand to profit at the expense of those whose lives are increasingly surveilled, controlled, and made invisible and intelligible through obligatory participation.

Although various theoretical critiques of capitalism abound, there are few modern examples of everyday people who have found a sweet spot in which their participation in the economy allows them to acquire resources that can be used to fulfill their social, cultural, and political desires whether or not they align with the system's. Remarkably, members of Amish communities do just this. They participate in the global economy while maintaining cultural, spiritual, and ideological autonomy in defiance of what Shoshana Zuboff calls *Big Other*. Big Other refers to an instrumentarian superpower reigning over today's high-tech society that "reduces human

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experience to measurable observable behavior while remaining steadfastly indifferent to the meaning of that experience" (376–377). Comprising commercial and governmental initiatives, in this new regime, "Big Other poaches our behavior for surplus and leaves behind all the meaning lodged in our bodies, our brains, and our beating hearts" (377). Just as Facebook's algorithm knows to serve a grandmother the first picture of her new grandson alongside advertisements for baby clothes, smart televisions are used by US national intelligence to detect (and eventually diffuse) terrorism threats. In recent elections around the world, social media have been weaponized by marketing companies that work to convince individuals to vote for a political candidate (or not) using false information. The lived experience under Big Other is a new kind of automaticity, a digital logic "that thrives within things and bodies, transforming volition into reinforcement and action into conditioned response" (Zuboff 2019, 379). This form of power is designed to reduce uncertainty in society. In so doing, it produces accumulated knowledge and profits for surveillance capitalists and diminished freedom for individuals.

At first, it may not be obvious to us that technologies are capable of diminishing our personal freedom or regulating our behavior. Indeed, because of recent advancements in digital technologies, we can simply ask a smart speaker in our house to order dinner from our favorite restaurant and it will show up on our doorstep within the hour. To cook our food at home is no longer a required chore. Is this not an expansion of freedom? We can also choose to video call our relatives who may live far away at any time. This relieves us of the trouble of traveling to have a conversation with someone whom we love and also to see their facial expressions as we talk. Is this not an expansion of freedom? It is easy to view such conveniences as expansions instead of limitations on personal freedom. From this stance, however, we disregard two important facts. First, these options generally are only available to people of socioeconomic privilege who have the technology available and the capability to use it. Second, if we meet these criteria, our actions and choices are limited and presented to us by the technology designer, a corporation (or multiple corporations) that stands to benefit from our use of their tools (a food delivery or video calling application [app]). By design, they offer us a purposefully narrow set of standardized actions but also personalize them to make it more likely that we will continue to use their tools. Over time, this may become routine, and we may become less likely to make dinner, exercising our creative energies, or

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to organize social gatherings where homemade food is shared. If we regularly replace in-person family gatherings with video calls, we may find it unnecessary to travel to spend time with relatives and connect emotionally to our loved ones and old stomping grounds. Certainly creativity and emotion are qualities that separate humans from machines, but they also work to help people connect to one another, creating strong bonds of social support. Regularly exercising our creativity and having intimate emotional connections to others and to shared places may make human beings less predictable, but it may also make us less monotonous, more unique, and perhaps more beautiful.

What happens to us as a society when we give up uncertainty, chaos, and abnormality and instead opt for regularity, transparency, and confluence? What are the broader social drawbacks when the population en masse consents to the observation of more and more of our actions when they are then reinforced and rewarded by the surveillance capitalists' digital algorithms? According to Zuboff, "what is at stake here is the human expectation of sovereignty over one's own life and authorship of one's own experience" (2019, 521). By ceding this power to the programmers of digital infrastructures, we give up our right to private inward reflection and to creating space for the development of and acting on our own will. Crucially, this robs us of our own moral and political autonomy by making us active participants in the dissemination and implementation of the values and interests of the already powerful. In other words, what may seem like small, individual-level decisions about using new digital tools actually have significant consequences for the preservation of democratic structures and institutions in society, especially for solving our society's many problems related to social, cultural, and economic inequality. Without the space for inward reflection, for developing our own will and sharing it with others close to us (provided we still have others close to us), we become pawns for the enactment of the will of digital capitalists, whose infrastructures operate according to a logic that seeks to separate us from one another and make us dependent on them to ensure the generation of consistent profit and social control above all else.

That the Amish actively make decisions about technology that rest on their unique moral, spiritual, and faith-based values puts them precisely outside Big Other's reign of power. They do not acquiesce to surveillance by this new authority and do not consent to the rewriting of the religious, faith-based texts and identities that guide their behavior. As such, their

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decisions about technology adoption and use provide an example of resistance to the powerful assault on the human capacity for authoring one's morals and will that we all face today. For example, an Amish person's decision to use electricity requires knowing where it comes from. If it comes from a solar panel or diesel generator, often it is allowed, whereas electric power from the public grid generally is not. Solar and diesel-derived electricity aligns better with Amish values, because it has limited, intentional purposes—often for powering tools in a workshop, not for a television or radio, which bring information and ideologies that are out of tune with Amish worldviews. The electricity generated by an individual generator or home solar kit is also not observable by large-scale anonymous institutions. Adoption strategies such as these are deliberate decisions that allow the Amish to get things done and compete for necessary resources in the twenty-first-century economy, without acting as pawns for large-scale, digital corporations and governments. From this holistic perspective, a relatively mundane tool (electricity) used for daily work is also seen as a political tool that helps resist forces that might entrap them in a larger political sociotechnical structure that is antithetical to their values.

This book highlights lessons from the Amish in their efforts to adopt technologies in ways that allow them to work and live according to their own value systems. Amish perspectives reveal that what may seem like routine decisions about digital technology adoption actually matter a great deal for human well-being. Additionally, it provides an update to our understanding of how the Amish work and live in an increasingly high-tech, global economy. They ask, "What is lost when we heavily depend on devices that we only vaguely understand to carry out essential human tasks such as connecting meaningfully to the natural world and each other?" Although Amish responses are in some ways unique, their ability to retain social and spiritual connection and to find meaning in life is instructive for all who seek to find their own balance between using technology to fulfill their interests and values while resisting the alienating forces of today's high-tech society.

BACKGROUND

In general there is very little recent research on Amish approaches to digital technology adoption. One of the most extensive studies on this topic

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was done by Diane Umble in the 1990s. Her research focused on Amish adoption and use of the telephone. Umble's (1996) book, *Holding the Line: The Telephone in Old Order Mennonite and Amish Life*, aimed to better understand the social impacts of the telephone on Lancaster County, Pennsylvania Amish communities during the twentieth century. She found that the arrival of the telephone brought new ways of communicating, which threatened face-to-face communication and oriented communication away from the home. When the telephone first appeared in Lancaster County, many Amish believed that "being able to know everything quickly" represented access to worldly knowledge, which resulted in some calling it a "sinful network" (Umble 1996). With the telephone, the world was brought to your door. This was a reality welcomed by some and shunned by others. The telephone, according to Umble, is not merely a neutral instrument. "It intrudes into already-established patterns of communication, potentially reorganizing and reordering practices that have long held 'the world' at bay" (xiv). The telephone made the community permeable to new information and introduced new methods for information gathering, association, and interpersonal interaction. At issue with the telephone was that "the telephone decontextualized communication and, thus the Old Order communicator" (2003, 152). Today telephones are found in or near many Amish homes and businesses, although a ban on phones in the home persists. "The coming of the telephone was a critical episode in the story of Old Order struggles to cope with social change" (Umble 1996, xiv). These struggles became known as the "telephone troubles." They set the terms of ongoing debates about how to manage communication with "the world" and how to respond to new technologies (Umble 1996). For the most part, the telephone troubles are now a settled issue. They have given way to debates about how to handle what many Amish people think is the most dangerous innovation of their time, the smartphone.

Author of many popular books on technology, Howard Rheingold also observed how Lancaster County Amish came to make decisions about adopting cell phones in the 1990s. His visit to the Amish was documented in a *Wired* magazine article in which he noted that the social health of the community is the primary focus when collective decisions about technology adoption are made (1999). He viewed the Amish as "technoselectives," not "knee-jerk technophobes." In his conversations with an Amish woodworker, he learned that the Amish "don't want to be the kind of people

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who will interrupt a conversation at home to answer a telephone" (1999). For them, it is not just how you use the technology, it is what kind of person you become when you use it (Rheingold 1999).

The Amish approaches to digital technology use discussed in this book articulate a sophisticated vocabulary for exercising one's morals and ethics in the adoption of specific, limited tools for the accomplishment of daily goals. When visiting the Amish, I learned that a device known colloquially as "the black-box phone" was the source of much debate within one Amish settlement. It is a landline phone with an attachment (a "black box") that connects the phone to the local cellular network. The whole contraption is powered by plugging it into an automobile's cigarette lighter (making it a mobile telephone). One minister showed me a prototype of the mobile version of the device. In this case, the black box and the landline phone were placed in a plywood box for transportation so that construction crews could use it when on the road (figure 1.1). In this settlement, a large proportion of the workforce was employed as construction workers. According to informants, about 100 construction crews left the settlement daily for work. A number of ministers in the settlement believed that cell phones, which had been adopted by many people there, should be given up. Instead of owning a cell phone, they argued, people should adopt a black-box phone because it would be less threatening to the social and spiritual health of community members. Cell phones, a more private medium, were seen as providing opportunities for engaging in extramarital relationships via private text-messaging conversations. Smartphones, they thought, tempted users to access unfiltered, immoral content such as pornography, which was problematic because it was seen as a potential replacement for human intimacy. The black-box phone, on the other hand, is an intentionally bulked-up contraption that allows mobile communications from a vehicle but is very inconvenient to carry around. It only allows public, audible conversations—no texting or internet access. It is also shared among the crew members. Ministers in the settlement hoped that the adoption of these devices would make individual cell phone ownership among its constituents unnecessary. As an intended substitute for cell phones, the black-box phone is a unique Amish modification or reconfiguration of existing technology that is in better alignment with Amish values—no access to video, music, games, internet, or texting. It forces communicative arrangements that are public, allowing for peers to hold each other accountable for

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Figure 1.1
An Amish modification, the black-box phone.

their actions. Additionally, this was a device that enabled Amish to use it to accomplish their goals and abide by their social norms, without subjecting themselves to Big Other's surveillance, control, and fragmentation.

This is just one example of how the Amish are actively configuring their sociotechnical world to better align with their values and protect their community's autonomy. Key to deciding whether a technology fits into their way of life is precisely tailoring the tool's means to the desired ends. In the early 2000s, Massachusetts Institute of Technology graduate student Eric Brende conducted an 18-month experiment in which he and his wife gave up modern ways of living and joined a group of Amish who were living without technology. He writes of a "magisterial feeling that comes with wielding means precisely fitted to ends" (Brende 2005, 27). According to Brende, wielding complex tools that have unlimited (often imperceptible) functions forces us to experience distraction, diversion, duplication, and obstruction in efforts to complete our goals. For him, complex machines were not neutral agents. They required fuel, space, money, and time and

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often "crowded out other important pursuits like involvement with family and community, or even the process of thinking itself" (Brende 2005, 7). His experience aligns with that of the Amish people I met. The black-box phone is a communication technology example of limiting the means of a task precisely to the desired ends.

Studying the Amish also helps move discussions of ethical technology design forward because members of their communities are actively contemplating and participating in the configuration of their information and communication networks and the design of their digital technologies (as in the black-box phone). Importantly, they are doing this in ways that enable them to fulfill their community's shared religious values, not those of large-scale anonymous institutions. They are extremely motivated to do so because they believe that the viability of their culture and way of life is at stake. On principle, they consult their shared values to determine how people should communicate inside and outside their community. They make rules about what technologies to adopt in their communities communally, publicly, and democratically. Every member of the church votes on amendments to the church's governing documents. Because the Amish actively design their digital technologies and use them to resist assimilating into powerful centralized entities such as metropolises, governments, and corporations, their approach stands to offer insights for others interested in configuring networked communication infrastructures that empower them to fulfill their own family and community values.

In resonance with the thinking of theorists including Manuel Castells (2009), Albert Borgmann (1984) Don Ihde (1990) and Langdon Winner (1980), the Amish actively view their digital technology use as political and as holding sway in determining how power flows over the communication structures that allow them to compete in the capitalist economy and sustain their community over time. For the Amish, in the past, empowerment has come from remaining disconnected. Today, however, this is changing—they are becoming extremely selective in *how* they connect. This book shows that there is a transition under way in how Amish communities are adopting technologies that connect them to the outside world. Previously, in determining how to adopt new technologies, the Amish simply built "fences": They separated themselves and their communities geographically from the outside world. Today, however, a changing economic environment and the materiality of technologies like the smartphone are making

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geographic separation a less effective strategy. Instead of building fences, the Amish have begun to implement strategies that reflect a desire to program a network switch that can be opened and closed to prevent unwanted information from entering the minds of individuals and diffusing throughout their communities. In her book, Zuboff outlines the need for a right to sanctuary to escape the rule of Big Other. She beautifully describes her home as fulfilling the role of refuge, where secluded bodies lay and breathe together and spirits take root. For the Amish, their charge is to create a larger ideological and spiritual realm in which church groups and families can collectively dwell together. To do this, they configure communication systems so that desirable packets of information are encouraged to flow throughout the community network and undesirable packets are blocked from entry. The goal is to create a dynamic social and cultural sanctuary where their way of life can thrive while resisting the authority of Big Other.

The technologies in question in Amish communities today (cell phones and smartphones, wired and wireless internet) are qualitatively different from earlier technologies in their materiality. Whereas landline telephones, which were hotly debated in Amish communities over the course of the twentieth century, are immobile and the content that one can exchange through them is of relatively low resolution, the informational capabilities of mobile phones and the internet, by comparison, are almost limitless. Perhaps most consequentially, the materiality of the wireless network makes it impossible to keep it at arm's length from the community and the size of the device makes it very easy to conceal on the body. These new technologies are of increasing concern to the Amish because they bring global networks (and especially the vast torrent of information and content that one can access through connecting to them) into closer contact with families, communities, and church groups. This presents challenges for the previous resistance strategy of erecting a static fence between themselves and the outside world. Because of the encroachment of global networks and Amish dependence on global trade, a geographic separation no longer inhibits communication across distances.

The central claim put forth here is that the Amish—a community well known for rejecting modern technologies—has developed calculated strategies based on their shared values and ethics for adopting digital technologies that they believe empower people toward the fulfillment of their mutual humanity. We are often led to believe that making deliberate choices

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about whether or not to adopt technology is nearly impossible, given the persistence and speed of our ravenous high-tech economy. Yet the Amish prove this wrong. Thus, this book articulates Amish strategies for value-oriented technology use that apply in a wide array of social contexts today.

The remainder of the book will further illustrate this through a variety of examples compiled thematically by chapter. The structure of the narrative is guided first by an introduction to Amish cultural history (chapter 2), which acts as a backdrop for understanding Amish ways of adopting and using technology. From here the book begins an empirical inquiry of different aspects of Amish creativity and ingenuity that allow them to make use of technology without deviating from their principles. This investigation is composed of three main focal areas. First, in chapters 3 and 4, rules are explored as innovations for resisting the negative impacts of digital technologies. Specifically, chapter 3 explores Amish practices in creating and abiding by explicit, codified rules about the use of digital technologies. While talking with people in Amish communities, I noticed that explicit rules were often easy to identify, but there were voids where people had to design their own approaches to "proper" technology use. Thus, in chapter 4, the creation of and adherence to implicit rules are explored. The second main focal area, the creation of communication artifacts, continues in chapter 5, where contraptions such as the black-box phone, made by Amish people for Amish people, are described. In chapters 6 and 7, the third focal area explores novel approaches to communication through digital networks. For example, in chapter 6, the development of a novel strategy for approaching digital communication for business is articulated. In chapter 7, perspectives on communication through digital networks show that the creative approaches to networked communication, as outlined in chapters 3 through 6, are fundamentally guided by a dedication to recognizing the mutual humanity of members of the community and on seeing holistic connections between people, spirituality, and nature. Finally, In chapter 8, the universality of these findings to Amish and non-Amish populations alike are considered.

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2

FROM THE FENCE TO THE SWITCH: CONFIGURING COMMUNICATION SYSTEMS FOR SANCTUARY

Members of today's Amish communities are active participants in the global economy. They travel for work and pleasure—often via train and hired vans and buses (Meek 2012). They communicate frequently via digital technologies to maintain connections with relatives and work colleagues who live far away. Increasingly, the Amish are dependent on outsiders to acquire the resources that they need to survive. They are different from others, though, in that they care a great deal about the nature of their connection to the outside world. As a result, over time, the Amish have developed sophisticated ways to regulate the communication channels connecting their local communities to everyone else in an effort to hold powerful ideological and cultural forces at bay—especially those that they believe could disrupt their strong, locally focused communities and simple way of life.

Adapting to economic changes has pushed Amish families to adopt many new technologies in recent years. Which technologies and how they are adopted, however, is not yet well understood outside Amish communities themselves. Generally a conservative religious group known for adhering to old-fashioned lifestyles, the Amish do not take a hard line against all new technologies, as some may think. The Amish do generally reject electricity supplied via the public power grid, as well as television, radio, automobiles, and modern clothing fashions. Among the diverse population of American Amish today, however, it is not uncommon to see people rollerblading, families enjoying time on the lake in a motorboat, construction workers using power tools, homes with solar panels on the roof, businesses with websites and Facebook pages, and individuals using cell phones to talk and send text messages. Some may view these behaviors as hypocritical or haphazard. This book, however, suggests an alternative: that these decisions are highly context dependent and often the result of calculated, communal negotiations intended to dodge the stress and anxiety associated with modern life while remaining competitive in the marketplace.

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In making a decision about adopting or rejecting a technology, the Amish ask whether it could create a link over which corporate and governmental control can indirectly reach in and corrode the cultural ties that bind their small communities together. The Amish care deeply about maintaining community coherence because they view it as central to the sustainability of their religion and way of life. Although the most basic unit of Amish social organization is the family, the local church community comprises families living in close proximity who provide economic, informational, spiritual, physical, and social support for daily life. Members of Amish communities often report believing that corporate media messages are dangerous to community coherence because such messages emphasize individuality, independence, and personal expression. Similarly, they are averse to governmental interference in their communities because governments conceptualize people as being anonymized: constituents, voters, taxpayers, and citizens. Instead the Amish view themselves as collectives with densely connected histories, people related to one another through strong multigenerational social bonds.

Today, like the rest of us, the Amish are moving toward a flatter, decentralized but highly programmed communication system where technology connects the local community network to the global information network. Rules guide communication flows in two distinct ways. First, communicative behaviors are shaped internally through informal socialization (especially of young people). From childhood on, the Amish are instilled with values such as humility and *Gelassenheit* (a term in the Amish native language, Pennsylvanian Dutch, that means "the act of giving up") that guide their interactions with others. They are taught to have an internal instead of external primary social orientation. They learn to feel the practical and spiritual benefits of mutual dependence and enjoy the peace of mind that comes from following tradition and working according to nature's rhythms. They are taught to form a "living brotherhood" and work together by giving "gifts of love" through the things that they make or the services that they provide to others (Cronk 1981). They learn to exert power through restraint and peace, not violence or aggression. Similarly, they are taught to identify the pitfalls and alienation that come from chasing after the fleeting allures of modernity. So when cell phones become intimately found on Amish bodies and in natural groupings, they are used according to Amish values, not modern values. The cell phone simply becomes an extension

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of them, their community, and their values, not the values of the corporations or governments that own the infrastructures and distribute information that travels through them. The materiality of the link to the global connection also matters. If these channels are difficult to calibrate, as is the case with television and radio, the technology is easier to reject altogether.

Amish philosophies regarding adaptation to a changing world are largely inspired by their belief that they should live differently and separately from the rest of the world. According to Amish studies scholars Donald Kraybill, Steven Nolt, and David Weaver-Zercher (2010), the Amish wish not to change the world but to resist it. In describing the Amish approach to negotiating with external ideological forces, these scholars call the Amish "a counterculture of religious affection" (Kraybill, Nolt, and Weaver-Zercher 2010, xiv). The Amish, however, would call their approach separation from the world. A collection of Bible passages interpreted for practical daily life provides the inspiration for the Amish separatist strategy: Romans 12:2 calls for Christians to "be not conformed to the world"; 1 John 2:15 states, "Love not the world or the things of the world"; James 4:4 says, "Whosoever . . . will be a friend of the world is an enemy of God." The Amish separatist strategy is also inspired by Jesus's Sermon on the Mount, which says that no one can serve two masters. "Seek ye first the kingdom of God, and he will provide for your needs" (Matthew 6:33). In choosing to focus on these passages, according to Kraybill and colleagues (2010), the Amish train their desires on spiritual priorities and allow the rest to be taken care of by God.

The goal of achieving salvation is a public and communal one, which fundamentally organizes Amish life and communication patterns. In contrast to other Christian groups, the Amish do not believe that confessing one's faith and being baptized ensures their salvation. To them this view is presumptuous. Instead, salvation according to Amish doctrine is a judgment based on one's actions, not words. This judgment is one that only God can make at the end of a person's life. The Amish talk of a "living hope" that at their death, God will be a merciful and just judge (Kraybill, Nolt, and Weaver-Zercher 2010). They see the goal of salvation also as an inherently practical, public, and common goal, not an individual or abstract one, because living separately and differently from the rest of the world is too difficult for a person to do on his or her own (Kraybill, Nolt, and Weaver-Zercher 2010).

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Community for the Amish is a privileged value that organizes nearly all aspects of daily life. It is at the heart of their religious beliefs and inspires the building of tangible boundaries between the subculture and the outside world (Hurst and McConnell 2010; Kraybill, Nolt, and Weaver-Zercher 2010; Umble 2003; Umble 1996). The community is often described by Amish people as the wine or the loaf of bread, whereas individuals are the grapes or the grains of wheat. Only when they come together do they form a functional, enjoyable whole (Kraybill, Nolt, and Weaver-Zercher 2010). The reason that community is so important to the Amish is that they believe living a life pleasing to God presents insurmountable difficulties for the individual. Receiving God's favor, for them, is a communal effort, not an individual one. The Pennsylvania Dutch word for community, *Gmay*, connotes three English words: church, district, and community. Districts (*Gmays*) are explicitly defined geographical areas in an Amish settlement. Whoever lives within the district's bounds attends church there (so long as they are Amish). As a member of a church, one is also a member of a collective economic unit. For example, if a member of the community suffers an injury or is ill and requires medical attention beyond his or her financial capacity, the church community steps in to help (Kraybill, Nolt, and Weaver-Zercher 2010). Medical insurance, according to the Amish perspective, is "an attempt to make secure that which Jesus said is not secure" (Kraybill, Nolt, and Weaver-Zercher 2010). For them, real security comes when people care for each other as much as they can. Districts generally break apart and form new districts when they grow larger than thirty or so families. Therefore, in addition to being a group of people who share similar religious beliefs, the church is geographically bounded and refers to an explicit body of community members. These factors underscore the importance of community for the Amish, which is foundational when studying the design of their communication networks and are designed to protect the local community over the long term.

In Amish communities the most common daily interactions are governed by tradition and rules: Who sits where at church, what chores are done at certain times of day, what month of the year people get married, what color one's house should be, and so on. These decisions are all made by social convention instead of individuals. That people are relieved from making such individual decisions acts to constrain individual egos, which are often seen as dangerous to group coherence over time. For the Amish,

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deference to God and to each other are one and the same (Kraybill, Nolt, and Weaver-Zercher 2010).

The Amish design their social world to ensure that collectively they are in good standing and available to receive God's favor at the end of their lives. To do this, over time, the Amish have developed a highly structured social system that helps individuals live a life according to a literal interpretation of Jesus's teachings in the Bible. This also helps them "fit in" and function in the group, which is seen as essential to receiving God's favor. They believe that their faith is inextricable from their everyday actions. In other words, actions, not just belief in God, are open to ultimate judgment. Putting an individual in the best possible position on judgment day is a group effort. They believe that the world is too alluring (and damning) for individuals to make their way on their own. Thus the social system that they have designed is comprehensive, explicit, and ordered. The Amish often cite 1 Corinthians 14:33 and 40: "For God is not the author of confusion, but of peace" and "Let all things be done decently and in order" (Kraybill, Nolt, and Weaver-Zercher 2010, 70).

This stringent ordering of social life is extended to technology adoption as well. I found that Amish leaders acted to configure their communication networks strategically and communally because they believed that their way of life was in danger of disappearing. In particular, they feared the encroachment of a normative American ideology that privileged sectarianism over religiosity, empiricism over faith, consumption over creation, individuality over collectivity, and novelty over nature. Today's powerful smartphones and other mobile devices represent increasingly invisible connections between members of their communities and this "worldly" ideology. Such connections represent ways of working that erase the means from the ends. If not kept at bay, leaders believe that such social tendencies would upset the Amish social structures intended to protect members' spiritual, social, and mental well-being. As a result, leaders were inclined to deploy evolving strategies of separatism, including, in some cases, placing limits on digital technologies or rejecting them altogether. They feared that widespread smartphone and internet adoption would endanger Amish belief systems, erode their shared values, and weaken the strong bonds that have sustained their communities for generations.

Separatist impulses among the Amish have historical roots. The presence of Amish people in North America is the result of emigration due to

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religious persecution in Europe. In the sixteenth and seventeenth centuries, when European governments and the church were closely aligned, the Amish held religious beliefs that made them heretics who defied centralized state control. Because of widespread persecution, many peace-seeking Anabaptists (Amish and Mennonites) immigrated to North America to evade control over their beliefs and practices by centralized powers. They settled in rural areas, away from the nucleus of state and corporate control, and for the most part they remain there today. The fact that the earliest Anabaptists were literally burned at the stake for their religious beliefs is still a living part of Amish folklore and identity. As a result, Amish groups continue to distrust large-scale government and deploy isolationist approaches for self-preservation. This contributes to the fact that their religious and cultural beliefs are still largely misunderstood and stigmatized by outsiders.

Although Amish communities seek to retain cultural independence from non-Amish society, internally people are encouraged to mutually depend on one another and renounce their own egos to ensure group cohesion. In the 1950s and 1960s, the Amish won an exemption from the US Social Security program because of their decades-long record of mutual care (Kraybill, Nolt, and Weaver-Zercher 2010; Social Security Legislation 1958). Many Amish homes have attachments called *Dawdyhauses* (grandparent houses) where elderly in-laws live so that younger family members can look after them and keep them involved in the family and community. Generally, the Amish reject putting elderly members in nursing homes, preferring to care for them themselves. Because church services take place only every other Sunday, on alternate Sundays families often go visiting. In other words, they travel by horse and buggy to the homes of their friends and acquaintances to talk to them. This generates an internally focused, strong-tie network in which channels of communication are open and the provision and receipt of mutual aid are encouraged.

In addition to mutual dependence, another social norm helps order Amish social relations and protect community ties. *Gelassenheit*, or "giving up," is privileging the value of humility over pride. *Gelassenheit* is seen as essential to creating a close-knit community that endures over time. According to Umble (2003), *Gelassenheit* is a term used by early Anabaptists to communicate the ideal of yielding completely to the will of God. It entails deferring to clear and distinct higher authority. In the Amish community, higher authority exists in God, the church, the community, church

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leadership, parents, and the Amish tradition. It is important to note that *Gelassenheit* orders relationships to have an internal focus. That is, although Amish are not opposed to deferring to non-Amish in certain situations, deference to Amish authorities is systematically expected. This works to deter an individual who may seek to gain social status through commodities, personal and professional success, worldly knowledge, individuality, aesthetic appeal, and so forth.

The principle of *Gelassenheit* also inspires the adherence to an Amish symbolic repertoire. This includes wearing simple homemade clothing, observing limitations on colors of house and buggy exteriors, eschewing participation in competitive sports and higher education, and using technologies only in approved "Amish" ways. These symbols all mark the Amish as different from the mainstream. Extensive rules about such issues as clothing, colors, technologies, and professional traditions diminish the need for individuals to stand out from one another, allowing the Amish to walk in the footsteps of their ancestors. Using these types of symbols to distinguish members of the community from outsiders helps create a tangible separation that makes visible those to whom one should and should not defer.

The Amish generally have large families (five children per couple on average) whose members often live close by and work together. The separate threads of work, spirituality, and community are tightly woven to form the broader fabric of everyday social life in Amish communities. Because driving a car is mostly forbidden, work is (very often) situated in the local community. Work and professional activity hold a special status in Amish life because they are seen as essential to the important task of family and community building in the present as well as across generations (Kraybill, Nolt, and Weaver-Zercher 2010). Work practices, ideally, should connect one to his or her forefathers and to God. The kinds of work done by Amish people are organized by rigid gender roles and one's place in the life cycle. Historically, fathers with young children have held jobs in farming, which enables the whole family to work together. Work is the preferred site for instilling everyday Amish values and developing a strong communal family core (Hurst and McConnell 2010). I was once told that being a corn farmer was not about growing corn but about growing upstanding young people and that your children were the only things you could take with you to heaven. Farming continues to be seen as an ideal profession for

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making connections to nature and instilling the proper character and values in children.

The Amish also build their community through personal gifts of work, whereas the outside world depends on an impersonal distribution system for goods and services (Cronk 1981). Work for them is considered a service of love for others, not primarily as a way of gaining wealth, power, or prestige. When a man or woman helps his or her neighbors after their barn burns, time is taken away from one's own work to provide assistance to others. Instead of encouraging a daughter to get a higher-paying job in town, for example, a family prefers that she work at the home of a community member to help a new mother with housework after the birth of her baby (Cronk 1981). Mothers often make clothes for their family members instead of buying ready-made clothes from the store, because they see this as a gift to them. In general, Amish think that work-saving conveniences reduce sharing and erode the caring relationships that they want to encourage in their system of community-oriented living (Cronk 1981).

Much of the training for living an Amish life is done through lived behavior, modeled by parents working with their children. Although the church plays an important role in guiding spiritual life, work is where these abstract values become manifest in one's everyday actions. The injection of values into everyday life might be the single most distinctive characteristic of the Amish religion (Kraybill, Nolt, and Weaver-Zercher 2010). The Amish understand that living life according to the Bible is an impossible goal but one that they must strive to reach. The first steps occur in training young children while passing down important skills that they will need to work. Children are taught through repetition by their parents, who model appropriate behaviors and practices, ensuring that the children follow their example (Kraybill, Nolt, and Weaver-Zercher 2010). These efforts are reinforced at school, where Amish children learn values that encourage them to be nice to others, think of others before themselves, and obey their parents and the Bible. All this training prepares future members of the Amish church for participation in community life. So thoroughly enveloping children in the Amish ways and repeating to them the tenets of the Amish ideology in word and deed result in young people often feeling extreme culture shock when they enter the outside world for the first time.

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The Amish believe that by including young children in their work, they learn to contribute to the family early in life and will not have time to cause trouble (Kraybill, Nolt, and Weaver-Zercher 2010). Amish people often cite Genesis 3:19, a verse about working by the sweat of one's brow to produce food. The proverb "Idleness is the devil's workshop" also enters Amish conversation, and the widely read *Rules of a Godly Life* states that idleness is a resting pillow of the devil and a cause for all sorts of wickedness (Kraybill, Nolt, and Weaver-Zercher 2010, 101). Keeping busy, in other words, makes it difficult for Amish youth to get into trouble (i.e., to be susceptible to outside ideological influences).

Although farming is still seen as the ideal kind of work for Amish men, there are fewer Amish farmers today than ever before (Hurst and McConnell 2010). Many Amish people today are moving from venerable agricultural professions to working in construction, tourism, or other cottage industries. This is causing anxiety for many older Amish and is having a significant impact on the texture of family and community life across the continent. Because of this shift, the economic landscape of many Amish communities today is in a state of flux. The risk, unlike for non-Amish, is not unemployment,[1] but that the kinds of employment available do not provide individuals and families with the ideal family-oriented lifestyle that farming once did. As a result, many Amish men find themselves working next to non-Amish people in factories, shops, and service jobs and as entrepreneurs with non-Amish clients. Women, too, are working more outside the home and are interacting with non-Amish in retail, tourism, service, and factory jobs to help increase family income. The impact that this will ultimately have on the coherence of families and communities over time is not yet known.

Amish people today believe that they must do their best to pick a profession that allows them to exercise their religious values, principles, and responsibilities as much as possible. Men feel pressure to find jobs that allow them to stay close to home so that they can spend time with family and are able to leave if an emergency arises; moreover, such jobs must provide them with a nonviolent (tolerant) and moral work culture (Hurst and McConnell 2010). In some areas, conservative church leaders prohibit members from working in these new industries. In these cases, innovation has occurred, resulting in the development of new sources of income. Innovative new

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economic "farming" enterprises include dog breeding and deer farming. Other industries acceptable to some conservative churches include running salvage stores that sell dented cans of food and medicine to bargain shoppers, operating greenhouses, engaging in hydroponic gardening, and sponsoring produce auctions (Hurst and McConnell 2010).

Innovation and economic necessity have put Amish entrepreneurs and (especially) nonfarm workers in positions where they must use modern communication technologies to remain competitive with non-Amish (and increasingly even other Amish) businesses. Hurst and McConnell (2010) note that efforts to maintain ethical and cultural boundaries between themselves and non-Amish people are most tested when it comes to technology. Over the course of one generation, the Amish have sprinted through the industrial revolution by moving out of farming into small business.

According to Donald Kraybill, the Amish of Lancaster County (Pennsylvania) have changed dramatically in recent decades. Citing an Amishman born in 1943 who describes the changes that he witnessed in the last half of the twentieth century, Kraybill (2001) reports,

> You're halfway over the hill in the Pequea when you can tell your children and grandchildren about things you never had when you were their age. Never had sisters day, brothers day, etc. only work days, no fruit pizza, no cheese pizza, in fact no pizza at all. No bathrooms, no phone shanty, no church melody books. Our outside toilets then were smaller than today's phone shanty. No compressed air or hydraulic tools. No *Botschaft*, no *Diary*, no *Pathway Magazine*. No $100 scooters or rollerblades. No trampolines, no gang mowers, no outdoor grills. Balers and binders put hay bales and corn bundles on the ground. No Amish school board, teachers or Amish schools in Leacock Township. No cheese dip or pretzel dip. In fact the only dip we knew was swimming in Pequea Creek. No fire company sales, no benefit sales, no school sales. You never heard, "yeah right," or "have a good one." No hot air balloons, no seat belts.

This list provides an enlightening glimpse of the multiple planes across which change has occurred in Amish communities such as Lancaster in just one generation.

It should be noted that in the nineteenth century, Amish identity was not closely linked with resistance to change, because their farms and households were similar to their rural neighbors. Distinctive Amish responses

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to technology began to emerge in the twentieth century "as the fruits of the late Industrial Revolution—driven by electrification and advanced transportation—moved into rural America" (Kraybill, Johnson-Weiner, and Nolt 2013, 313). When industrialized ways of life began to emerge, the Amish began separating themselves symbolically through resisting certain aspects of "progress." Kraybill asks, "Why do some aspects of Amish life change while others remain stuck in tradition? Is there a formula by which some innovations are accepted and others rejected?" (Kraybill 2001, 296). His answer is that the Amish view social change as a matter of moving cultural fences. Cultural fences mark the lines of separation between the Amish way and the modern world. Coping with social change, Kraybill says, involves fortifying old fences, moving fences, and building new ones. According to Kraybill, no single principle or value determines change or adaptation in Amish society. He sees change as a dynamic process in which a variety of factors impinge on a decision to accept or reject a particular practice. "Decisions to move symbolic boundaries always emerge out of the ebb and flow of a fluid social matrix" (Kraybill 2001, 297). Moreover, he says, with seventy-five bishops in the Lancaster settlement alone, it is impossible to maintain uniform standards. Therefore the diversity of practices increases as the Amish population continues to grow. These factors characterize the move that Amish people have made in recent years to strategically configure their technology adoption and communication systems to create a dynamic sanctuary that allows them to control information flows into their communities.

In 2019, there were 341,900 Amish living in North America. This is an increase from 128,145 in 1992—making them one of the fastest growing religious groups in North America (Amish Population Profile 2019). Although this trend is mostly indicative of a higher than average birthrate (compared to other Americans), it also suggests that the Amish have been exceptionally successful at navigating rapid social change. Although it might seem that technological and economic developments pose insurmountable hurdles for the Amish, their population is thriving, and work is not hard to come by (Hurst and McConnell 2010). Thus, when considering the necessity of digital technologies for economic viability and social progress, the Amish are a particularly interesting case. We are often led to believe that we cannot lead fulfilling, successful lives without technology. The fact that the Amish limit the use of digital technologies within

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their communities, yet seem to be thriving economically, raises a number of interesting questions.

FROM THE FENCE TO THE SWITCH: SHIFTING TRENDS IN AMISH DIGITAL TECHNOLOGY ADOPTION AND USE

The observations and experiences described in this book will show that strategies for adopting and rejecting digital technologies among the Amish are changing to continue resisting assimilation in the information age. In the past, mediated connections between the Amish and the outside world were more static (newspapers, books, telephones, letters, etc.). Fences were built to geographically separate Amish bodies and connections to the outside world, including communication technologies. For example, the telephone in most Amish communities has been removed from the home. It sits in an outbuilding in front of the home so as not to disturb family conversation. It is there in case of an emergency. Business associates can also leave messages on the answering machine. This is desirable because it does not disturb family conversation inside the home—a sacred space. By separating the telephone from the body and the social processes that sustain natural groupings such as family, religion, and community, the Amish believe that they are able to hold centralized corporate and governmental powers at bay. This book offers a first step toward understanding how this approach has been adapted to deal with more dynamic technologies such as cell phones or smartphones and the internet.

Kraybill suggests that there is a process in place in Amish communities whereby the acceptance of new artifacts and the relaxation of old standards often happen by default. In this kind of system, the adoption of technologies starts to diffuse through social networks informally. Sometimes this diffusion will result in more formal rulings later on. Social changes or new technologies, he says, are discussed at formal meetings held twice a year where ministers come together to try to maintain uniformity across the (Lancaster) settlement. Sometimes, though, "change just kind of happens," according to a minister whom Kraybill interviewed. Church leaders rarely plan or *initiate* social changes. More commonly, decisions are made to *resist* changes. For example, if a questionable practice such as the use of computers or wall-to-wall carpeting in homes begins to gain widespread adoption, the bishops could deliberately curtail it. The bishops use biblical images

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to frame their responsibilities in such situations. They see themselves as responsible for guarding the flock. They are not the source of innovation; instead their charge is to observe and inspect potential changes and resist the detrimental ones (Kraybill 2001).

Thus, change in Amish society comes from neither the top nor the center of the social system, but from the periphery. "It is often instigated by those living on the edge of the cultural system who try to stretch the boundaries" (Kraybill 2001, 298). These individuals are often called *fence jumpers* or *fence crowders*. They might experiment with a new gadget such as a fax machine, a corn harvester, a mixer powered by air, a computer plugged into an electrical inverter, or a website for their business, he says. If someone complains, church leaders may pay the early adopter a visit. Then the "deviant may make a confession and 'put away' the questionable item" (Kraybill 2001, 298). In the Amish system, limitations on technology use come from a reactionary social authority instead of a proactive one.

Kraybill suggests that fence jumpers usually know what is likely to "pass inspection." If a new item such as a calculator, disposable diapers, or a cash register is adopted by others and is met with few complaints, eventually the practice will creep into use by default, he says. These decisions, however, take place over a significant course of time. Borderline practices, such as artificial insemination of cows or the use of telephones, may be tolerated or put on hold for several years to more thoroughly assess their impact. There is some danger, however, in letting things go too far for too long without adequate attention from the bishops. "There is a delicate line of no return," says Kraybill. There was a division in the church in 1966 when bishops tried to eradicate pieces of farm equipment that had already been in use in several church districts for a decade. In observing the potential impacts of such decisions, one Amish leader told Kraybill, "If we're not tolerant, we'll have more [Old Order Amish Church schisms], but too much tolerance can wreck the whole thing too" (Kraybill 2001, 302). The Amish approach to change, then, is hallmarked by a dynamic process of collective resistance and negotiation. The governance structure in place to guide such processes in Amish communities provides a framework that outlines where the freedom to negotiate with modernity exists and where restraints on individual actions are more firm.

The decision-making process in place in Amish communities for adopting or rejecting a new technology has been in development since the late

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nineteenth century and has been extensively studied (Cong 1992; Cooper 2006; Hurst and McConnell 2010; Kraybill 1998; Kraybill 2001; Kraybill, Nolt, and Weaver-Zercher 2010; Kraybill, Johnson-Weiner, and Nolt 2013; Murphy 2009; Rheingold 1999; Scott and Pellman 1990; Umble 1996; Umble 2003; Wetmore 2007; Wueschner 2002). Previously, in determining how to adopt new technologies, the Amish simply built "fences": They separated themselves and their natural groupings (family and church groups) geographically from the outside world. Today, however, a changing economic environment and the materiality of technologies such as the smartphone are making geographic separation a less effective strategy. In macrolevel political negotiations via social and information network configuration, the Amish have begun to implement strategies that reflect a desire to program a network switch that can be closed to prevent unwanted information from entering the minds of individuals and diffusing throughout their communities. Information flows are calibrated specifically to allow Amish communities to protect their cultural autonomy in much the same way that fences did in previous eras.

Today, in moving from building fences to flipping a switch, the Amish are building a flatter, decentralized, but highly programmed communication system where a technology and the prescribed usage of it connects the local network (community) to the global information network. Rules control communication flows in two distinct ways. First, communicative behaviors are shaped internally through informal socialization. From childhood on, the Amish are instilled with values such as humility and *Gelassenheit* that guide their interactions with others. They are taught to have an internal, instead of an external, primary social orientation. They learn to feel the practical and spiritual benefits of mutual dependence and enjoy the peace of mind that comes from following tradition and working according to nature's rhythms. They are taught to form a living brother- and sisterhood and to work together by giving gifts of love through the things that they make or the services that they provide to others. They learn to exert power through restraint and peace, not violence or aggression. Similarly, they are taught to identify the pitfalls and alienation that come from chasing after the fleeting allures of modernity. Therefore, when cell phones mediate Amish communication, they are used according to Amish values, not modern values. This reflects an interest in fulfilling Amish values while resisting the power of corporations and or governments to anonymize and

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fragment society by making people dependent on technology and the services offered through it.

Second, communicative behaviors are guided by the democratic establishment of a set of formal rules, called the *Ordnung*, that govern technology use. The *Ordnung* governs relationships and ways of life among Amish church members and makes rules about technology adoption explicit for members of the church. Amish *Ordnungs* vary across district, despite various efforts to achieve uniformity among certain "tribes" within the Amish population, as Kraybill and colleagues call them (2013). *Ordnungs* are locally developed in each district and are meant to augment the Bible for modern living. Much collective thought and solemnity goes into decisions about what rules to inscribe into the *Ordnung*. Some communities have rules in their *Ordnungs* that make cell phone ownership illegal for members of their community. In others, cell phones are allowed for work purposes only. In some, there is no rule about cell phones in the *Ordnung*, leaving people to make individual decisions about whether to acquire one. The materiality of the device that links Amish people to the global network matters a great deal to them because they want to be able to control what flows over the various channels of influence into their communities. An *Ordnung*, then, contains codified rules outlining how the material link to the outside world should be configured.

According to Kraybill, Nolt, and Weaver-Zercher (2010), the *Ordnung* is considered a cluster of time-tested practices that enhance community well-being. Compliance with the *Ordnung* signals a member's desire to live in harmony with others. Interestingly, this venerated document is not written down but communicated through lived behavior. Showing disregard for the *Ordnung* signals an individual's disregard for God and the community. Although there are sometimes severe consequences for disobeying the *Ordnung*, including shunning, the Amish are generally quite forgiving if forgiveness is requested. That the *Ordnung* is not written but passed down through lived example positions the Amish to embrace and adapt to environmental change. The malleability of this arrangement allows them to easily react to a changing technological and economic environment. The *Ordnung* is sacred and respected. Although the Amish way of life is highly organized and structured through rigid social and gender norms rooted in religious doctrine and tradition, the flexibility of the *Ordnung* allows them to adjust to dynamic environments and roll with the punches, so to speak.

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It presumes an uncontrollable, changing, and uncertain external environment and positions the community to evolve in harmony with the outside world, yet in many ways separate from it.

The purpose of the *Ordnung*, or the rationale for its existence, is to create of the community a "living brotherhood" (Cronk 1981). Essential to this undertaking is following the behavior of Jesus, who did not use his power to manipulate or coerce others to achieve his will. "He would not even allow Peter to use his sword to prevent his capture when Judas betrayed him. He yielded himself so completely to God's will that he allowed himself to suffer and die on the cross" (Cronk 1981, 7). From this, the Amish have come to believe that eternal life comes not from conquering through might, but from yielding and submission. As a result, members of most Anabaptist groups conscientiously object to serving in the military. As Cronk notes, God works in the world with "the power of powerlessness" (1981, 7). She suggests that this understanding of power is paradoxical. Using love instead of coercion signifies the rejection of "the usual forms of power." However, Christ's love, according to the Bible, has had great power and has also brought about radical change. Understanding this paradox, according to Cronk, is essential to understanding Amish rites and rituals, because each has this profound insight at its root.

The people in Amish communities in charge of updating and enforcing the *Ordnung* are the church bishop, ministers, and deacons. These church community leaders are men who have been chosen through the drawing of lots. This diminishes human choice and accents submission to God and the community. By using this approach, the community gives up control over the outcome and hands it over to God. Church leaders are not elected or appointed by their constituents or external entities, though in some communities the population of eligible men is dwindled down through a nomination process. According to Kraybill, the most important qualifications for ministry include being sound in the faith and presiding well over their households. Qualified men should "have good order in their own homes" (2001, 51). They should be ready to model the Amish way through daily habits, attitudes, and disposition, according to Kraybill.

These positions are held for life. When an opening needs to be filled, a slip of paper is inserted into a hymnal. Without disclosing which hymnal has the slip in it, the books are distributed to the eligible candidates. The man who opens the hymnal with the slip in it fills the position, and he does

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not have the option to decline. One man who went through the lot said, "It's a weighty time . . . there are no congratulations. You realize your life is now changed forever and you've now gotten an additional set of responsibilities that . . . you can only carry with the Lord's help" (Kraybill, Nolt, and Weaver-Zercher, 2010, 52–53). This process communicates to members of Amish communities that God chooses the church's leaders. Sometimes it might not be clear to people why God chose a particular man. This is yet another reminder to Amish people that they must surrender their own egos and defer to higher authorities.

In doing research for this book, I interviewed forty-five participants (thirty-five of whom were Amish church or business leaders). Being an Amish bishop or minister is an unpaid position. So participants in this study all had other professions and hobbies in addition to their duties as ordained clergymen.[2] This group was very eclectic, containing entrepreneurs, farmers, furniture makers, buggy builders, cabinetmakers, mechanical engineers, millionaires, school board members, patent holders, a historian, a manager at a multinational corporation, a clock maker, an employee at a business that sells almost two million dollars' worth of product on a popular online auction website, and at least one world traveler. As is conventional among the Amish, these men had only eighth-grade educations and were largely self-taught.

These individuals described workarounds such as the black-box phone and explicit and implicit rules guiding the adoption and use of digital technologies among today's Amish. They also articulated efforts that they made to ensure human well-being as their sociotechnical environments changed. In particular, they worked extensively to strategically arrange their social relationships through technology use in an effort to privilege the fulfillment of human spirituality, connection to nature, strong social bonds, cultural autonomy, economic vitality, and individual social and psychological health.

Strict gender roles continue to structure the way in which people work and interact in Amish communities today. I heard only a few female business owners articulate philosophies about the adoption of technology. The views of these women were focused primarily on technology adoption and use that spilled over from business into family and spiritual life. Women are not eligible for formal leadership within the Amish church, so it was common for people to refer me to male church and business leaders to answer

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my questions. Church and business leaders were generally seen as uniquely capable of speaking for the community, especially to outsiders. Others were not.

For this reason, regrettably, I was not able to hear the perspectives of many Amish women. As a result, this book contains mainly the experiences and ideas of men; asking women about these topics, unfortunately, was simply not an option. With the exception of recently conducted research by Rivka Neriya-Ben Shahar (2017a, 2017b), there are few published studies outlining the unique cultural experiences of Amish women. Certainly more research is needed in this domain. I did have encounters with Amish women (and one extremely insightful interviewee was a female business owner), but generally I did not get the opportunity to observe women acting as thought leaders. In my encounters, women were reluctant to articulate viewpoints about the social and political impacts of technologies broadly, or for specific classes of Amish people. On a tour of Amish businesses in Lancaster County, I asked a prominent female business owner, whose business was notably high-tech (computers and printers were visible in the workplace, and the business had a website, online marketplace, and Facebook page), if there were gender differences in technology adoption and use among business leaders. The response I received was a simple "No, I don't think so."

It is also important to note that what might appear to non-Amish observers as obvious gender inequality in Amish social structures is not necessarily perceived as such by members of the community itself. First, women and men are both considered members of the church with equal representation in voting for changes to the Ordnung. Additionally, the fact that women are not eligible for formal leadership roles in the church is reported by many women to be a relief. This job is frequently cited, by men and women alike, as causing stress and requiring much time and energy. Furthermore, at home—the center of Amish work and spiritual life—women's voices tend to hold sway. Therefore, in an effort to maintain access to the already reclusive Amish population, given the unique nature of its strict gender roles, I did not seek to interview less powerful people within the community or ask questions about nondominant uses of digital technologies within Amish communities.

During the period when this research was conducted, the adoption of new communication technologies was a topic of interest to many Amish

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business and church leaders, and the influx of new technologies was a source of much debate. This contributed in various ways to the amount and type of data I was able to collect. I have written extensively about how I did this research elsewhere (Ems 2015). To summarize, I used two primary methodological approaches. First, I conducted semistructured interviews with Amish church and business leaders in two settlements in Indiana from March 2011 to February 2014. Indiana, home to the third largest population of Amish in North America, has received less attention than the two states with larger Amish populations, Pennsylvania and Ohio. I sought to talk with Amish ministers and business owners via a snowball sampling method because they were central figures in the negotiation of sociotechnical change in their communities and were more accessible to outsiders than nonleaders.

Many community leaders were also facing dilemmas about how to collectively move forward given the changes going on around them. Talking to their peers about adopting digital technologies was generally seen as taboo. One interviewee told me that there is a "don't ask, don't tell" policy in place in many communities that inhibits conversations on this topic. Perhaps when participants received an invitation from me to share their experiences and opinions on these topics for this book, knowing that they would be anonymized, they then felt happy to have an opportunity to speak their minds. As a result, this book captures a wide array of differing viewpoints as well as a collective Zeitgeist among the Old Order Amish that shows a poise and readiness for navigating today's sociotechnical challenges.

Secondly, while in the field, I also observed a number of uniquely Amish technological artifacts and sociotechnical arrangements. Therefore, in addition to my interviews with business and church leaders, I conducted a thematic content analysis of a trade journal popular among Amish entrepreneurs, *The Plain Communities Business Exchange* (*TPCBE*), which provided insights into the spread of these artifacts and arrangements among the broader Amish population. According to the *TPCBE* website, the journal appeals to readers who do not have access to the internet and rely on mail publications to learn about and buy products that meet their family's needs. The journal contains advertisements for products made by people from plain communities, which gives the publication the feel of a catalog. It resembles a version of the *Whole Earth Catalog* meant for Amish living. One can find information for purchasing nearly everything that an Amish

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home-based business or household might need for daily operation, from ice cream makers to equestrian supplies to off-grid, electric office equipment. In addition to the advertisements, the publication contains a number of articles that explore issues that plain business owners might face in their work. It is educational in the sense that the articles are often written by experts from the plain community on topics such as finance, technology, management, or travel. Articles often consist of real life stories that illustrate a way to overcome a particular type of challenge in the workplace. In chapter 5 a number of unique digital technologies and related services repeatedly appearing in *TPCBE* advertisements are presented and described. In chapter 6 a set of nine articles exploring Amish strategies for internet adoption, appearing monthly from December 2013 to October 2014, are summarized and analyzed.

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3

EXPLICIT STRUCTURE, COMMUNAL DECISIONS: SETTING SANCTUARY'S BOUNDS

Very little is currently known about how rules of the past are evolving in Amish communities to deal with the unique material affordances of today's modern digital technologies. As the community's needs change with decreased agricultural work, it is unclear whether and how these tools can serve to help Amish people satisfy their goals. Indeed participation in the twenty-first-century economy requires "always on" connectivity and open channels of communication with customers. As the Amish enter this commercial environment, old rules about connecting with the outside world *are* evolving. In particular there is an effort to ensure that digital technologies are adopted in ways that are sufficiently limited and precisely tailored to enable the satisfaction of community goals.

In this chapter, the explicit, visible collective and public approaches to developing rules about digital technologies today will be explored. Despite recent changes to the process of adopting digital technologies in Amish communities, two distinct approaches are key to calibrating official church rules: mutual respect for differences and necessary consensus. These approaches are foundational to setting the boundaries that demarcate Amish sanctuary from digital surveillance and control in today's evolving social and professional spheres.

CHURCH GOVERNANCE AND GEOSPATIAL ORGANIZATION OF DISTRICTS

The *Ordnung* constrains individual technology use, which keeps people in good standing with the church. Amish *Ordnungs* vary across districts, despite efforts to achieve uniformity across districts and settlements. *Ordnungs* are developed in each district and are tailored to fit church members' particular needs. (If a district's members are all farmers, the *Ordnung* might be different from a community where there are no farmers, for

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example.) Those in charge of updating and enforcing the *Ordnung* are the church bishop, ministers, and deacons. Church districts typically have one bishop, two ministers, and a deacon. In the formal governance structure of Amish church communities, their role is to lead the church in making and enforcing church rules. According to Timothy, a minister, church leaders are resistant to anything new. They may watch what happens in other districts when a new device comes in. If they see that it is not likely to have unwanted impacts on social relationships and community well-being, then they might adopt it.

In interviews, participants suggested that the geographical arrangement of people within a church district, combined with the role of leaders, were the main forces in place to resist social change. The arrangement of people within an Amish church community has been well documented by other scholars (Hurst and McConnell 2010; Kraybill, Nolt, and Weaver-Zercher 2010). The social and geographical bounds of each church community are concretely defined (figure 3.1). In addition to the geographical boundaries, the names of the members of each community are listed in Amish directories, which are very reliable and widely utilized documents. The size of districts is kept small so that it is possible for all members to congregate in one family's home for church services on Sunday mornings. Typically, there are about twenty to thirty families in a district. If a district grows larger than this, it is split into two districts. Districts usually have names and are presented as distinct entities in Amish directories. An individual and his or her nuclear family are typically members of the same church. Districts are geographically bounded so that it is possible to travel from home to church by buggy, foot, or bicycle. In figure 3.1, each district is represented by a box with a number inside. The entire map depicts the districts that comprise an Amish settlement in Indiana. Members of a church district or community are referred to as "brothers" and "sisters" and seen as extensions of the family.

ADOPTING TECHNOLOGY VIA COLLECTIVE, PUBLIC DECISION-MAKING PROCESSES

As a new technology comes along, it goes through a formal decision-making process in Amish communities. Although church leaders play an important role in facilitating this process, the church collectively makes

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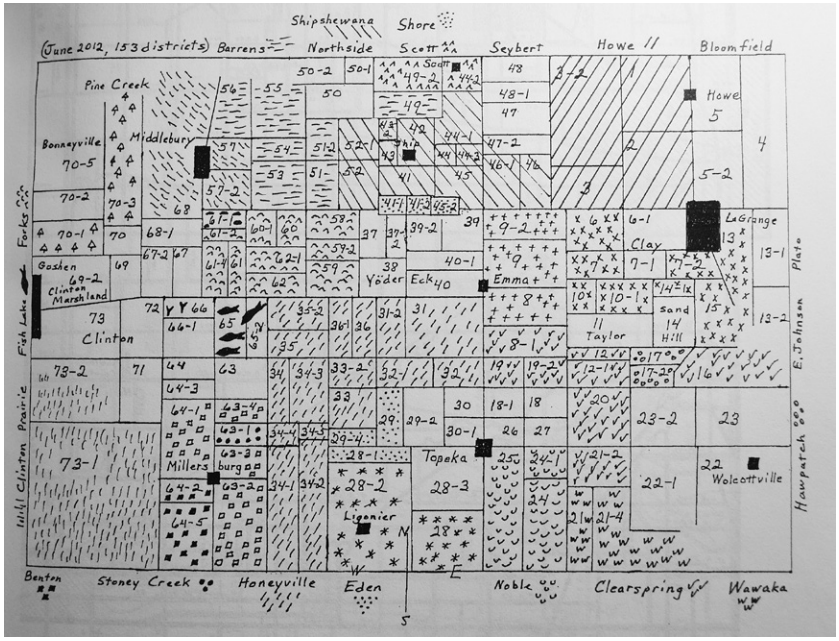

Figure 3.1
A 2012 map of districts within an Amish settlement in Indiana. *Source*: Indiana Amish Directory, 2012.

the final decision. "We aren't a dictatorship," said Calvin, a bishop from southern Indiana. Generally new technologies are considered twice a year when the church goes over the *Ordnung* and considers amending it. During this time, church members deliberate over potential changes and decide together whether to inscribe new rules in the governing document. Both men and women who have been baptized are considered members of the church, and their votes count equally when such matters are being decided. Young people who have not yet been baptized are not eligible to vote on such decisions. Bishops work with the church members to learn how people feel about potential changes and work to understand members' needs. There is a preparatory church meeting before the communion church meeting in which the *Ordnung* is amended. In the preparatory meeting, any disagreements among members must be resolved or communion is postponed until resolutions are reached. Church leaders make suggestions about what the rules should be, but ultimately each member of the church votes on them. Enforcing rules, however, once they are made, falls

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under the church leaders' jurisdiction. According to Calvin, the goal of the decision-making process is that "[they're] trying to learn how to control or discipline [themselves] in order for [their] community, society, and individuals to function."

Abiding by rules is a condition of membership in the church body. According to Jerry, a minister, "Church leaders have rules and standards. If people don't follow the rules, they aren't members of the church." Victor, a bishop, echoed this notion, saying, "Rules are spelled out for people when they become a member of the church. Expectations for following rules are communicated up front." If people become displeased with a church's rules, they may move to join a different district that better aligns with their values. Often in these cases, individuals leave a large, progressive community and move to a smaller, more conservative community because they believe that this allows them to better adhere to Christian beliefs and raise children in a more low-tech, small-scale setting at greater remove from the larger society. Scholars such as Cong (1992) have documented situations in which the adoption of a technology—kerosene refrigerators, in this case—caused a group of more conservative Amish to move out of a larger, more progressive settlement into a smaller, more geographically isolated region where their values could be more freely enacted.

For example, when I asked John, a minister, about the decision-making process in place in Amish communities to regulate the adoption of new technologies, his response indicated that people often move out of or into a church district because of its particular inclination toward progress. According to John,

> Every area is kind of . . . they determine on their own . . . you know, yay or nay. This is acceptable, and [these are] the guidelines. And some areas of the community are naturally more conservative. And that's why people purchase property and put up homes in those areas because their choice is "I want to be in a more conservative area." Or vice versa, where people decide "I'm going to go to a more progressive area that is much more liberal." So, a lot of it is the area in the community in which you reside.

I asked John how common it was that people moved into districts for philosophical reasons. He said,

> It would be tough to put a percentile on that because normally when a young couple gets married then they go out and look at property for setting up

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> homekeeping, sometimes it's only by what's available. And sometimes it's . . . well they're looking in, seeking a specific area. So, I would say it's pretty prevalent. But I can't put a percentage on it. Because I know there are some areas where I would prefer to live and there are some areas I have no desire to live.

He said it boiled down to the fact that "you gravitate towards some of those areas" because of your "personal convictions" or "lack thereof."

Sometimes, however, the need for a new technology arises quickly, and church leaders must deal with it locally in a timely fashion. According to Victor, a bishop, in these situations church leaders make decisions on a case-by-case basis. When such a case arises, they first consider the future and try to imagine how the technology might change their way of life. "We think about what will come along with the technology if it is adopted," said Victor. When a member of his church who owned a store asked if he could have a UPS label printer for his business, Victor met with the other church leaders and discussed the man's request. In these discussions, they asked whether the church member had "a want" or "a need" for the new device. In this case, they determined that the store owner had a need for the device. At that point the church leaders asked themselves, "What will this bring with it?" and "Can it be restrained?" He said, "We feel new technologies are always bound to bring something else with it." In this case, the device was allowed, because they did not think that it could be "addictive," or that it could be used for recreational purposes. According to Victor, "Church leaders must understand their members' needs and listen or people will do what they want anyway. They must give a little bit but hold back as much as they can. . . . It can't be that a bishop just forces rules on them without such considerations."

Ivan, a bishop, took a similar approach. He said that when he makes decisions, "I look at what is the need." In his work at a construction company, he used new computers and email, and his colleagues used cell phones, smartphones, and the internet daily. He believed that digital technology use was acceptable so long as it was for work, not recreation. However, Ivan said that he was

> . . . concerned about the part that comes with it when you adopt computers or cell phones like Game Boys, PSPs, all that. Those are negative aspects that come with the adoption of the others. They are different because they're used for pleasure and occupying your time in a non-beneficial way. You can't use them to do business better. They are a hindrance to spiritual life.

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Ivan's comments are instructive because they indicate a stark difference between using a technology for business (gaining the resources needed to sustain a family and community) and for entertainment, which is seen as culturally, socially, and spiritually dangerous.

According to Bill, a minister, when making a decision about allowing a new technology to be adopted, "church leaders get together and counsel." They also ask whether the person has a need or a want for the new device. In such situations, they gather around a minister's kitchen table and discuss issues relevant to the specific case. They might discuss the family problems or marriage problems of the person making the request, if there are any. Then they also go to all the church members and discuss the request with them. "They have an opportunity to say their opinion," he said.

During the time that Bill has been a minister, the word processor was adopted as an acceptable technology within his community. He used this as an example to describe how a technology passed through the process of adoption in an Amish church district. At first,

> Someone would come to the church leaders with this tool and say that they needed it for x, y, or z purpose like bookkeeping. They presented their wish to church leaders. Church leaders would then take some time to think about it. They weighed factors like, "What were the advantages/disadvantages of it?"; "What might come with it that they might not anticipate?"; and "What were some of the drawbacks of it?" Like, could someone get addicted to it?

Bill told me that he had a non-Amish employee who was addicted to his cell phone. He said, "He doesn't even eat lunch. He just drinks a big Mountain Dew and plays games on his phone during his lunch break." Church leaders wanted to make sure that people could not get addicted to the new tool, he said.

In the typical scenario, after the church leaders take time to think about the person's request individually, they get back together and share their thoughts. At that point, the bishop suggests a possible ruling, and the ministers and deacon can either agree or disagree. Then their job is to come up with a group proposal. Once they land on a proposal, they present it to the church members. At that time, church members also have the option of agreeing or disagreeing. Church members vote by a show of hands; they could be for or against the proposed rule. Only church members get to vote, so children and other nonbaptized individuals are excluded from

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such exercises. If many people are in disagreement, church leaders take the time to talk it over again until the church can come to an agreement. If only one person disagrees, he or she should have a reason that is sufficiently based in scripture. In this case, the church might revisit the discussion or the individual might be overruled. "We have [procedures] like this in place because otherwise it could just turn into chaos," Bill said. These procedures are wrought with conflict, tension, and struggle. The decisions are heavily context based and are vetted on multiple levels to make sure that they are made according to Amish religious, cultural, and professional values. Every effort is made to predict dangers that could come along with the adoption of a technology that would inhibit the exercise of their will, values, and way of life.

Jerry, a minister, also emphasized the importance of collaboration between a church's leaders and its members in the making of decisions about digital technology adoption. When the Amish make a decision about adopting a technology, church leaders will counsel with members, he said. They negotiate if there is disagreement. Generally, in these negotiations, church leaders discourage the use of new technologies as much as they can. According to Perry, a minister and business owner, these negotiations could get sticky because church leaders usually do not have experience with or understand the technology up for debate. Church leaders often (but not always) are more conservative in their practices and ways of life than the average person, because they try to set an example for those around them.[1] Perry said that people who do not understand technologies are often the ones who get most upset about them. "I have more compassion for those who put a halt to new technologies because they are the pillars that keep things stable among our people," he said. "And young people don't understand the people who are trying to keep things stable." Church leaders have had to realize, though, that people who interact with the outside need phones (as an example) more than those who do not. These individuals often request phones because they feel pressure to keep their business going. Perry thought that the reason some people had adopted cell phones was the fact that the Amish had been pushed out of farming and into businesses that required contact with outsiders.

In such collaborations, church leaders must be cognizant of the environment in which members live and work, while performing their duties to protect the souls of their church members. Their role is to ensure that there

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is a balance between allowing businesses to survive in the modern economy and holding true to their heritage and values. In my experience, the latter is the more dominant of these two forces. According to Kenneth, a business owner, "Church leaders drew a line on how much to go along and how much to hold back." In bishop Timothy's district, he said, there were five very prosperous families with at-home businesses (as opposed to families whose livelihood was farming or factory work). He said that they were very happy with their way of life because they could work from home and not go off to work in the recreational vehicle (RV) factories where many Amish people in this settlement work today. To stay competitive in their industries, they asked for permission to adopt new machinery from time to time. If they did not get the machinery, Timothy believed, they would not have their at-home businesses and would likely be forced to work in the factory, away from their families. In this way, Timothy thought that adopting technology could sometimes help Amish people hold true to their core values if it allowed them to stay at home and work alongside their family members. Echoing Timothy's view, Daniel, a business owner, said, "We try to hold back as much as we can but we have to innovate just a little bit."

Sarah, a business owner, felt pressure to use computers, the internet, email, and cell phones to ensure the success of her family's tourism-oriented retail store. She said the bottom line for them was to maintain an open and honest line of communication with the church. "It's not that hard to do. It's part of what we believe to be right," she said. "Sometimes we have to give in and give up something we want. But that is a blessing. Working with the church is the best course of action. Hiding is not good." Thus, in most cases it was out of close collaboration, counseling, and often conflict that church leaders and members believed that they were able to adopt new technologies in ways that reflected their shared value system and kept their communities functioning cohesively.

CROSS-COMMUNITY CALIBRATION: MUTUAL RESPECT FOR DIFFERENCES VERSUS NECESSARY CONSENSUS

The thought processes on technology adoption differ from place to place, according to Andy, a deacon and business owner. Despite differences, church leaders sometimes seek to work across districts to regulate the adoption of technologies in Amish settlements. To date, according to Ivan, a

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bishop, "In each district when a new technology came about, the issue was brought into the ministry. Some [church leaders] would approve it, some would not. This yielded variety across districts." This is especially true in northern Indiana, where participants do not see differences across districts as troubling. Many participants noted that it was conventional to respect other churches that had different *Ordnungs* and had adopted different technologies than in one's own church. In fact, some church leaders saw this as a distinct advantage. Kevin, a minister and business owner from northern Indiana, said that in his district, "Church leaders might watch what happens in other districts when something comes in. If we see it's not so bad, then we might adopt it. Sometimes we just don't adopt it, though." In this way, it is advantageous for church leaders to work across districts to observe and regulate technology adoption despite their differences. John, a minister from northern Indiana, agreed, saying,

> I'll be right up front, there's not always the same thought process or agreement, if you will, or levels of concern all the way across the board [among church leaders]. But you have that because you're dealing with humans. So, usually it's talked about, it's thought about, it's prayed about. The days go on. And sometimes not everyone is in agreement. But again that is because we're human. But, I think that, for the most part, the church leadership has the best interest of the community in mind. And as an example, you know that there are some areas that allow cell phones by church membership.

Church leaders in southern Indiana, however, take a different tack by trying to "achieve consensus across church districts," according to Sam, a business owner who was my main point of contact in this settlement. The bishops in all thirty districts get together twice a year, and rulings are harmonized across communities, Sam said. It is conventional for leaders from this area to have similar thoughts about what should and should not be adopted. In my research, however, I learned that some differences of opinion did exist, which troubled the church leaders there.

The church leaders I spoke with in this settlement all agreed that cell phones should not be adopted. Many church leaders decided not to meet with me, however, because, as Sam said, there was a fear that if you meet with all of them, there will be inconsistencies, and "this should never happen." He continued, "The community is going through a struggle to decide which direction they should go on the issue of technology and

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especially cell phones. One bishop is lenient and the next is opposed to cell phones."

According to Levi, a bishop from this settlement, there have been disagreements among church leaders in the district regarding "material issues." He said that church leaders gather to discuss problems with technology adoption and use in their districts. He thought that achieving consensus has been a process of give and take. "Agreement was not always good," he said. Collective action was best and sometimes required disagreements to be vocalized. According to Levi, agreement could mean that no one was "going along," but they might act as though they were to avoid conflict. The best-case scenario, from Levi's perspective, would be that people voice their disagreements but can still work something out. "They would compromise and go forward in peace and work. We can't all have our way," he said. The basic principles (Amish values and Christian beliefs) are commonly held, however. There are sometimes disagreements regarding the rules, but people with different points of view can still usually visit and be friendly, according to Levi.

In this way, the northern Indiana settlement and the southern Indiana settlement have taken different approaches to working across districts to formally adopt or reject technologies. For members of the northern Indiana settlement, I found that there was an ethos of *mutual respect for differences* that allowed some communities to experiment earlier with technologies and others to wait and watch them to see what happened before they made decisions for themselves. In southern Indiana, on the other hand, an ethos of *necessary consensus* permeated interdistrict relationships. Peer pressure, it seemed, worked to ensure that technologies were (or were not) used according to shared beliefs. However, this stood in contrast to participants' reports of technology use—many church leaders and business owners reported that members of their community owned and used cell phones, even though they were not allowed to do so according to church rules.

These formal processes in place in Amish communities for making decisions about adopting or rejecting new technologies carry substantial weight for their publicity, democracy, and historical privilege. They work to lay a foundation for outlining the boundaries within which their way of life can flourish. No longer are these geographical boundaries marked by the fences of previous eras. Today, these boundaries are social, cultural, and digital. Making decisions about where boundaries lie are contested, inclusive, and

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arduous. At all levels of the decision-making process, values systems are consulted. At the end of the day, spirituality is the strongest guide to Amish decisions on where they mark their sanctuary's bounds. These boundaries are essential to the Amish strategy for resisting the negative impacts of today's surveillance capitalism. They tell only half the story (or maybe even less than half), however. There is still much discrepancy between what the official procedures allow and what is actually adopted and used by members of Amish communities. There are a number of informal mechanisms for regulating the adoption and use of new technologies in Amish communities that carry (at least) equal weight to the formal mechanisms just described.

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4

WHERE THE "RULES" END, INFORMAL APPROACHES TO BEHAVIOR CHANGE BEGIN

In my first encounter with Noah, I realized that he was an exception in many ways. Time and again in my fieldwork, I spoke with Amish people who belonged to a church that had a rule against cell phone ownership, yet they owned a cell phone, had a family member who did, or knew someone who did. At a cynical first glance, one might simply read this as hypocrisy or an effort to present an overly rosy view of reality. My interviews with Amish leaders suggest that such inconsistencies are not evidence of people exploiting loopholes in the *Ordnung,* however. Instead, there are patterns revealing that informal systems work to extend the *Ordnung*. Indeed, these informal mechanisms work to ensure that members of the community have the freedom to be flexible and adaptable as they choose tools that are precisely tailored to conducting their work, fulfilling their values, and maintaining community. These individual decisions occur via conversations in families and church communities but are not inscribed in the *Ordnung*. Three types of informal mechanisms were observed, and together these work alongside formal rules to constrain and tailor tools to desired ends: (1) teaching the "proper use" of a technology, (2) relying on old arrangements to guide future action, and (3) presenting proper use as a symbol of group identity.

TEACHING THE PROPER USE OF A TECHNOLOGY

As previously noted, bishops, ministers, and deacons play an important role in executing the formal mechanisms governing sociotechnical change in Amish communities. Their work, however, does not stop there. Because it is their job to execute institutionalized processes, which are public, communal, and democratic, church leaders often believe that it is also their responsibility to understand how members feel about issues surrounding technology adoption or rejection. Often it is in these interpersonal

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interactions that church leaders have more power to influence and regulate social change. Thus, using a wide-angle lens, one sees that the decision-making process also involves holding, curating, and provoking informal (sometimes public, sometimes private) conversations with church members that have the potential to sway public opinion throughout the close-knit social network in one direction or another. Here, church leaders typically identified two distinct visions for bringing out proper use among church members: *strong teaching* and *instilling personal convictions*.

Before exploring these approaches in detail, it is useful to understand the church leaders' most public forum for guiding thought and sociotechnical change: the Sunday sermon. Each Sunday, a church leader has the opportunity to give a sermon. It is often not decided until the church service begins which of the ministers (or bishop) will be giving the day's sermon. It is common to see varying degrees of preparedness among church leaders from week to week. Some are likely to come with scheduled topics to discuss, and some let themselves be divinely inspired in the moment. The topic of technology can come up during a church sermon, and the message espoused often influences church members' opinions on the subject. The sermon is seen as a religious and educational message that is taken up and referenced in church members' everyday conversations with family, including in daily devotional sessions throughout the week. These everyday conversations hold the potential to incite changes in group opinion and to promote the adoption or rejection of technologies formally at the community level and inconspicuously at the individual or family level. In interviews it was common for a participant to recall something that was discussed in the sermon during the preceding week and relate it to our conversation in the moment. In addition to sermons, church leaders might also curate (provoke or stifle depending on the situation) public topics of discussion by convening with other members, publicly enforcing rules, or both. In this way, church leaders use their power to set the agenda for public conversations and encourage a type of informal socialization that works at the grassroots level. This is intended to bring about the proper use of a technology in the community, when formal rules do not go far enough.

In my interviews with church leaders, I asked them to explain how best to ensure that people are using digital technologies properly. In all cases proper use was seen as usage that was limited in some way. The strategies that church leaders used to influence church members' behaviors, however,

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were slightly different. One of the notable variations that I observed was in the preference for either a *strong teaching* approach or an *instilling personal convictions* approach. Although it was not perfectly divided along settlement lines, more church leaders in northern Indiana preferred *instilling personal convictions*, whereas southern Indiana church leaders relied more on *strong teaching* to guide proper technology use. Similarly, younger ministers who had businesses where digital technologies were used generally reported favoring *instilling convictions*. In contrast, farmers and older church leaders favored *strong teaching* approaches. Regardless of the favored approach, most church leaders agreed that a combination of both was needed to bring about proper use today.

For example, Jacob, a southern Indiana bishop, took a *strong teaching* approach toward bringing about proper use among his church members. For Jacob and many other church leaders, their primary motivation for limiting technology use was the preservation of the souls of their members. Jacob thought that digital technologies were especially dangerous because they "took the mind away from where it should be." Portable gaming devices like Game Boys were an example he gave. As a bishop, he believed that his job was to "teach, talk, and warn" people not to go near these things. "It's like teaching children to stay away from a burning fire," he said. "Parents must warn and teach their children not to go near it because kids don't know." Although he actively preached against the use of digital technologies by church members, he had little ability to enforce such behaviors. Jacob's use of common adages in describing his philosophies on technology seemed to suggest that this was not the first time that he had had conversations on this topic. He told me, "You can lead a horse to water, but you can't make him drink" in describing how his preaching was sometimes ignored by church members when he discussed such issues. He also noted, "You can convict a man against his will, but he will remain unconvicted[1] still," as we were talking about how to instill convictions in church members that governed their behaviors and discouraged the use of digital technologies according to Amish beliefs.

Like Jacob, another southern Indiana bishop named Levi also took a *strong teaching* approach to restricting church members' digital technology usage. He said, "I try to keep reminding people of and enforcing church rules." In his community, though, he thought that the church rules were of little consequence. "People live their lives to their own heart's content,"

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he said. That was the trend in his church. "Instead of asking the church for permission, people just go ahead and do what they want to do." In warning them about the dangers of technologies such as television, video games, cell phones, and the internet, he said, "I tell them. I preach it. And it seems like it goes in one ear and out the other." For Levi, this "causes a sadness. We know we don't want it but we know we have it. Noah preached until the door closed. How far are we from flood times now?" he asked, referencing the biblical parable of Noah's Ark.

Levi told me that he thought that as a society, we were headed in a dangerous direction and that he believed the second coming of Christ was growing closer every day, citing environmental crises and humanitarian atrocities such as school shootings that he saw in the daily news. He worried that people would be caught unprepared, saying, "God told us there would be no making ready" when he comes again to take his believers to heaven. Levi felt his frustrations with trends in his church acutely. He was sincerely worried about the impact that new technologies were having on his congregation's souls because he believed that the day of ultimate judgment was quickly approaching. The fact that his church members did not always listen to his warnings brought him deep emotional distress. Like Jacob, he thought that there was not much he could do about it, though, because "The Amish don't believe in putting force to things like others might." He thought that this was something that outsiders had trouble understanding about the way in which the Amish did things.

Instead of relying primarily on *strong teaching*, other church leaders reported having a greater reliance on *instilling personal convictions* in church members, preferably at a very early age, to ensure proper use of digital technologies. I asked many informants, "What do you think is the best way to ensure that people use digital technologies according to Amish beliefs?" The answers for people who preferred to rely on *instilling personal convictions* often used language such as "People must consult their conscience" or "Technology use is determined by one's religious convictions." For example, Melvin, a business owner, used a computer and the internet daily in his work as a financial manager at a construction company. He used Google Maps and told me that he had not "put his foot down" on his children's use of mobile devices and social media because he was afraid that it would push them away from joining the church. When I asked him how to use these technologies according to Amish beliefs, he said, "Controlling the

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use of a phone, computer, or the internet is mainly done through personal convictions." The rules in his church that limited technologies were justified, he believed. He said that he was allowed to use technologies because he had control over himself. "Some people did not have this self-control, though." When I asked how one teaches this control to others, he said, "I don't know . . . but having a conscience and convictions toward that helps." When he started using computers, he said that there was a firewall and a pop-up blocker on them. This helped train him to use them the right way. He told me that he had looked at YouTube and had decided that if it was showing something that he did not want to see, he would turn it off. If he were not able to do this, he said, "I would not have convictions."

Noah and I had many conversations about how best to encourage people to use technology according to Amish beliefs. For him, it was acceptable to use new digital technologies so long as the person used them in accordance with Amish values. He had a smartphone and used a computer and the internet at work daily. As a purchaser at a construction company, he said, he currently did all his buying online. He believed that for his business, having access to the internet and computers was "a matter of survival." He said that his bishop did not want to ignore the fact that "technology is here" and took a proactive stance in making decisions about technology adoption in businesses like his. Thus, his bishop and fellow church leaders consented to the technology in his business, but he still felt guilty about using it. For Noah, his convictions limited his use in a way that signaled his respect for Amish tradition and values. This, he thought, was something that he was able to regulate best through consulting his own conscience. For him, the issue was not whether you used a cell phone or the internet but how it was used that was more important. He believed that it was essential for his business to have these tools to compete in the marketplace and that his deeply held convictions helped him use these tools in a way that allowed him to adhere to his Amish values.

For Noah, it was very clear. Adopting technologies was no different than any other individual choice about one's behavior. Noah thought it was best not to use digital technologies, but if it must be done, one should use them according to Amish values through demonstrating self-control. Self-control, he said, was based on what he called "The three Cs," which he told me he had preached about before: conviction, confession, and contrition. Conviction refers to modeling behaviors according to biblical teachings and

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Amish tradition. Confession refers to asking others to hold you accountable for your actions. And contrition, according to Noah, had to do with turning things around or "doing an about-face" if you realized that you had "gone down the wrong path." Noah also believed that using technologies responsibly was not counter to the Amish lifestyle. From his viewpoint, it would have been disrespectful to use technologies in ostentatious ways, but for work and necessities they were acceptable and useful tools. In this way, Noah's vision about how to ensure proper use best exemplified *instilling personal convictions*.

When I asked Floyd, a minister, business owner, and grandfather, how to teach a child to use a technology in the proper way, he said, "They already know."

> The church has rules which kids are taught all the way through. Children grow into it and learn the values that way. It's hard to explain because they just know. They've been brought up in a certain way to understand the values and the way of life. You start teaching your kids how to talk to others before they are born in how you talk as husband and wife. You start talking to them as children and explaining to them what values are important.

Echoing these sentiments, Robert, a minister from northern Indiana, said, "Instilling convictions starts when we hold [our children] in our arms. It begins when we talk together as mother and father before they're born. We have to speak to them before they can speak to you." Sam, a businessman, said this was important to reiterate as children entered adolescence. He stated, "We must teach young people 'the why' of what we [cannot] do as Amish. Otherwise we won't keep the youth." He said today's youth have gotten better in the past ten years, saying that they are more sincere and conscientious. Technology use, from this viewpoint, is not a space where actions become divorced from values, nor is it separate from other ways of acting in the world. It is simply seen as another annex of social life where deeply engrained Amish values are enacted.

Andy, a deacon and business owner from northern Indiana, believed that both enforcing limitations on use and relying on moral values contributed to the proper use of digital technologies. He thought that personal convictions and limitations on use complemented one other. According to Andy, "You have to be the master of your own actions. If you can't, you should remove the thing that brings temptation." He said, "I don't care

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what you do. You have to be a master over your actions. If you can't, you shouldn't have the technology that gives you access to the temptation." Others shared Andy's sentiments as well, noting the importance of both approaches in daily life. Ryan, a bishop and business owner, also emphasized the importance of instilling convictions and emphasizing restrictions and limitations. He used a computer for designing homes with a computer-aided design system at work on a daily basis and had his email open on one of his two monitors as I was talking to him. He believed, however, that computers could bring along problems because they made it possible to access evils via the internet. "In general, if people have convictions they will stay away from the problems," he said. "If they don't have convictions, it could lead to problems in the community." I asked Ryan how to instill convictions in people. He replied that it is done through talking and warning people about the dangers of technology. He also thought that convictions could be instilled by establishing restrictions and limits on technology use. "If we limit computer access by allowing computer use, but only for business and not for personal use, we put restrictions on them," he said.

RELIANCE ON OLD ARRANGEMENTS AS MODELS FOR FUTURE ACTION

Inherited Amish traditions and philosophies also work to regulate the use of digital technologies in Amish communities. These philosophies work to throttle information flows that are seen as potentially threatening to individual souls and the sustainability of the community over time.

"HOLDING BACK" TO CONTROL INFORMATION FLOWS

One such philosophy is a tendency to "hold back" in terms of adopting new conveniences. Almost all participants noted a desire to lag behind mainstream society in their adoption of new technologies. Among other things, this philosophy is associated with maintaining a separation from the world as well as controlling information flows. For example, Calvin, a bishop, told me that his philosophy on technological change stemmed from the need to maintain separation from the world. "We keep trying to hold back. There will be a struggle in the future to keep back. It's hard to back up." In the interviews, a common phrase was repeated that described shared feelings about the inevitability of sociotechnical change: "Once the toothpaste

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is out of the tube, it's hard to put back in." Although Calvin thought that there was a great opportunity for evil influences to infiltrate his community through technology, he said he could not totally condemn such technology. The Amish philosophy that Christians should be "in the world not of the world" required them to hold back, however.

Many participants viewed the technologies themselves as troublesome only because they provided unrestrained access to all kinds of information. Calvin and many other church leaders told me, "It's not the phone we're against. It's what comes through it that we disapprove of." Thus, church leaders were averse to the information that could be accessed by the technology, not the technology itself. Joe, a minister and business owner, added to this, saying, ". . . videos, pornography, texting, music, pictures, etc. And all of that comes through a device that fits in the palm of your hand." He felt that this was problematic because it was specifically this kind of content that could be damaging to the soul and the strong connections that sustained their communities over generations. The information flows that these new devices made possible were, in participants' minds, synonymous with creating bridges that connected them "to the world." And they were especially troubling because they connected them in such an effortless, intimate, and private way. Specifically, church leaders feared that the convenience and inconspicuousness of smartphones and cell phones would lower the access barriers to worldly ideas that could corrupt souls and the Amish way of life. Business owner Dennis thought that imposing limits on technology use was wise. "By limiting technologies like the internet and cars, we want to control influences on young people's thinking. We want them to develop an appreciation for where they are from [before they experience the outside world]."

John, a minister, explained how this philosophy guided his everyday actions. He told me that he had no plans to adopt a cell phone because it "would offer [him] a bridge or a connection to things [he] really [has] no need of connecting to." When I asked what kinds of things he meant, he said,

> I don't know if you'll understand it or not, but what I would consider to be worldly things . . . non-Amish related . . . things I can do well without in my lifestyle, which is a plain . . . I choose to live a plain lifestyle. Things like [popular] music, YouTube, games . . . everything like that . . . non-essential items in my life.

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Others believed that connecting to the world through new digital technologies was dangerous because it would divert their attention away from their religion and culture. Nelson, a business owner, said, "Technologies like cell phones and the internet are one way to participate in the fast pace of life which results in Christianity being crowded out." He thought that "cell phones were the world's worst addiction." Christianity, he said, was like the salt that preserved souls and humanity—and technology, he thought, destroyed the salt. "This stuff (digital technology) is crowding Christianity out. When the salt is gone, preservatives are gone and the meat spoils." Similarly, Floyd, a minister and business owner, said, "If we get more involved in the outside world, we will lose our culture, and technology is a bridge to the outside." Similarly, Robert, a minister and business owner from northern Indiana, believed that "technologies made you independent not dependent on your community." For him this was problematic because technologies might eventually lead to a dissolution of the Amish culture if people were no longer dependent on their community.

Many participants reported feeling that the various material characteristics of digital technologies were threatening to the sustainability of Amish culture and rituals. Levi, a bishop, reported feeling that the ease of access to information and speed of communication changed rituals such as informing community members when someone passed away. "Texting is such a fast communication," he said. "Used to be, when someone died, you had to hitch up a horse and buggy and go to each person's house. Now, in minutes everyone knows." According to Levi, "When we adopt more technology we are giving up our lifestyle a little bit. We become more independent. We don't do thrashings and silo fillings anymore, which brought the community together. We used to write a lot of letters but do that much less now too."

According to Nelson, a harness maker, the slow (Amish) pace of life is preferable to the fast (outsider's) pace of life, which new digital technologies make possible and encourage. He does not have as many employees today because he despises the fast pace of life. He believes that it shoves out the good and important parts of life. "We're caught up in it bad. We can't deny it. We must cope with it." I asked him how one does cope with this. He told me a story about a man coming into his shop who asked him why he did not try to grow his business. He responded, "Bigger isn't always better. Success has failed many a good man. It ruins them. Not everyone, though." His son

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is in business with him, and he tries to teach him this lesson. "One has to be reasonable. People who are not satisfied are always discontent. Advancement in technology doesn't satisfy discontentment. It feeds it." He cared a lot about education and saw education and spirituality as inseparable. For Nelson and others, they see the way in which non-Amish public schools separate education and spirituality as artificial. For them, to grow and learn intellectually is also to do so morally and spiritually. To elaborate on this perspective, Nelson offered an example from his childhood, in which he attended a public school with Amish and non-Amish children. He remembered when President Kennedy was assassinated. He remembered that his teacher asked the children in his class to start praying when they heard this dreadful news. He said, "That couldn't happen today and we wonder why there are shootings in schools. It's something to be concerned about."

Similarly, Timothy, a bishop, told me that cell phones were used by young people to organize large parties where alcohol was often served. If the police were made aware of the party and came to the scene, text messages were sent around, resulting in the dispersal of (often) underage partygoers. Timothy, a leader in the community, had meetings with police about this. He believed that this was a spiritual and physical hazard for young partygoers and for the coherence and reputation of the community as a whole. He said, "With cell phones, if there's a problem anywhere, within five minutes everyone knows."

PURIFYING ONE'S READING DIET TO CONTROL INFORMATION FLOWS

Given an overwhelming aversion among participants to the internet and the worldly information that it makes accessible, I was surprised to learn how many participants enjoyed reading mainstream newspapers, magazines, and books. For example, Daniel, a business owner, talked about an article on video game design that he had read in *Time* magazine, discussing the intention of designers to make the game as addicting as possible for users. Kevin, a minister and business owner, told me that he had subscriptions to *Entrepreneur* and *Inc*. magazines, two entrepreneur- and business-oriented publications. He said that he was turned off by them, though, because all the articles lately had been about internet businesses, which did not interest him.

In an interview with the owner and manager of the largest Amish-focused, local publication in northern Indiana, *The People's Exchange*

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(circulation for the publication, printed every other week, is 15,000), I learned that the bulk of an Amish media diet included Amish-produced publications that cater to Amish audiences. *The People's Exchange* fit this bill and was read by most Amish people in the settlement, they said, along with national Amish newspapers such as *The Budget* and *Die Botschaft*, as well as a variety of other Amish-produced magazines such as *The Connection* (produced in northern Indiana), *The Plain Communities Business Exchange*, *Family Life*, *Young Companion*, *Blackboard Bulletin*, and books, especially those from the well-known Amish press, Pathway Publishers. In addition to these, members of the Amish community might subscribe to mainstream local newspapers that provide them with local, national, and international news, as well as weather reports and other information. One of the men I interviewed at *The People's Exchange* also had a pharmacy where newspapers and magazines were sold. He said, "When we used to sell the *Chicago Tribune*, almost all of them were purchased by Amish people." These customers also purchased *USA Today* and *The Wall Street Journal*.

Many individuals described filtering their reading material according to their religious philosophies. Sam, a business owner with whom I worked very closely during my fieldwork in southern Indiana, told me that he really liked to read. He said he only reads to better himself, though. "Reading for pleasure is as bad as being illiterate," he said. For him reading should have a distinct purpose. He thought that it should be something that could be used for work or spiritual edification. He told me that he learned a lot from reading, and many professional doors have opened for him because he is such an avid reader. He believes strongly that "ignorance is not bliss. It is a curse. There is no reason for ignorance in today's world." In addition to reading many trade journals and books, he also reads spiritually enlightening publications including *Family Life*, *Blackboard Bulletin*, *Young Companion*, and *Anabaptist*. These publications are aimed at conservative Anabaptist audiences and contain stories and information in a variety of topical areas including nature, science, morality, and pedagogy. They also cater to various demographic groups including intellectuals, young people, women, children, spiritual leaders, and teachers. All the information and stories in these publications, however, explicitly espouse and support Anabaptist beliefs and values.

In the November 2013 issue of the Amish publication *Family Life* (13), an essayist discussed what he or she would do differently were the writer

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to become a first-time parent again, especially with regard to filtering the information and media to which children are exposed. The writer believed that over the course of twenty years as a parent, the world has come to be seen as rapidly deteriorating.

> If we'd be starting to raise our children again, we'd spend less time tending flower-beds, and more time tending young souls. We'd explain about God. We'd talk every day about Jesus and His love. We'd listen more attentively to childish prayers and prattle. Instead of just reading Bible stories, we'd try to apply them to their lives. Back then we knew nothing of little electronic devices that could spew vile images into the minds of our young sons. We had no clue that filth could noiselessly creep into our homes in such tiny ways. Today we search in vain at the local library for books with sound moral values. Those titles have long been discarded, and replaced with books containing more excitement, more violence, more filth. Back then many forms of music seemed harmless. Today, we cringe upon hearing the words of some of the lyrics our children might be exposed to.

In another essay appearing in the October 2013 issue of *Family Life* (8) by Leroy D. Beachy, titled "Give Attendance to Reading," various considerations were given with regard to properly filtering one's "reading diet."

> Not all printed material is acceptable in our homes. What we read does influence our mind and thought patterns. Our thoughts regulate our words, deeds, and walk of life. Therefore it is important that we screen our reading material. Very important indeed!

The material that the author found objectionable included missives that carry a note of "modernism, sports, luxurious living, and the modern missionary theme. . . . Romances, novels, mysteries, or Westerns contain much filth. They fill our minds with such thoughts that it is impossible to lead a godly life as long as we are reading them. Any such books or magazines lying around need to be consigned to the fire."

PATRONIZING PUBLIC LIBRARIES TO CONTROL INFORMATION FLOWS

In my fieldwork I learned that an increasing number of Amish people in the northern Indiana settlement were patronizing the local public libraries. They were checking out a variety of books and videos and using public computers and the internet. I conducted two interviews with librarians at two different libraries and asked what types of information were of interest

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to Amish patrons. They said that the publicly available computers were most often used by Amish patrons for conducting work. Business owners often came in to check email and place orders online because they did not have computers at their homes or businesses. Librarians also noted that young Amish people who came in to use computers used them in ways quite similar to their non-Amish counterparts. They played games, went on social media sites, and listened to popular music. Often women would come in with their children and shop online. During the economic downturn in 2008, many people were laid off from the RV factories in the settlement. The libraries became very popular at that time because the laid-off workers could come in and fill out job applications and file for unemployment.

Because I learned that many church and business leaders feared the internet for its capacity to make pornography accessible, I asked librarians if they had witnessed Amish patrons accessing this kind of content. One librarian responded,

> We had a few, a couple of people who were looking at porn. And in fact we got a call from a bishop saying, you know, that we shouldn't have that. We explained that no matter what kind of filters you have there are ways of getting around them. That is one of the reasons why we now have the computers where we do. We can see from the [circulation] desk what they're doing. We have not had a problem since we did that.

Prior to this, the computer monitors were turned so that they faced a nearby wall, "or they would see us coming and start playing solitaire," the librarian said. "We had a guy who played a whole lot of solitaire [laughs]." At the other library one young Amishman had been caught using his father's credit card to view the *Playboy* website. Generally, however, both librarians said this was an exception to the rule and that other patrons tipped them off to that type of behavior because they also found it to be offensive.

According to the librarians, there is little difference in the type of content that Amish and non-Amish patrons consume in the libraries. One librarian who had lived in the area for twenty-five years said, "They probably check out the same movies. And a lot of them probably watch them together too." In her estimation there was very little cultural difference between members of the local Amish and non-Amish populations besides those that were visible, such as attire and the horse and buggy. According to the librarian,

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> One [tourist] asked me where to get Amish cooking? I literally laughed! I said they're no different than anybody else. I said this is the Midwest. It's farmers. We all eat the same thing. We all do the same thing. And you're always going to have differences from town to town and from church to church.

In my conversation with this librarian, I was surprised to learn that the Amish were checking out videos, but she told me that it was quite common. She said, "It was so much more common today than twenty-five years ago. It amazes the tourists that come in here to see all the Amish checking out DVDs. [laughs] And I get asked, 'How do they watch them?'" Being a tourist of sorts myself, I asked, "Well, how *do* they watch them?" Her response was that they might have a laptop or an iPad or take them to a friend's house. I wondered about the demographics of these particular patrons, and she informed me that it is not just teenagers. "We have families coming in, they're going on a camping trip and they will have a DVD player so they get DVDs." I also observed people in Amish attire reading on Kindles in public places in town and asked one of the librarians whether their patrons check out e-books. She said,

> I know we have at least one because one night . . . it was a group of young . . . and I'm talking twenties . . . couples that were checking out and one wanted to know if we had a certain book and it was checked out or something. And the one young woman told one of the guys, well, you can just download that on your Kindle or whatever. Yeah. So, I know that some of them do, yeah.

She also noted that some young men have come in with TomToms or other Global Positioning System (GPS) devices, seeking to update them via the internet. She said, "I'm not sure what they're using them for, but it's not my business. To locate fishing holes maybe?"

The librarian at the other local library noticed an increase in Amish patrons checking out videos about three years ago. She said,

> At first it was just the teenagers and we thought they were just going to an English[2] friend's house and somehow they've got access to a player or a video. And then families will take them out. . . . Older couples, sometimes. . . . Not as much with the older couples. But families will take them out and younger people will take them out.

I asked in what context she thought people were watching these videos, wondering if perhaps it was just a Friday or Saturday night thing. She said,

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"Unless we know somebody. And I personally don't know anybody I've checked videos out to . . . that well that I could say, 'Oh, you're watching a video' [laughs]!'" Both librarians were inclined to protect their patrons' privacy and not cast judgment on their choices. The second librarian, however, recalled one incident from about ten years ago. She was at a local restaurant for lunch and a teenager was there in a separate little room where there was a television with a videocassette recorder (VCR) attached to it. He was watching the screen while he was eating. When he was done eating, he reached into the VCR unit and pulled out a videocassette. He put it in his jacket and was on his way, she said.

On another occasion, the librarian said, an Amish parochial school teacher brought his students into the library a couple of times. She said, "We set them up in the community room with our laptops that we use for teaching. And they were doing some research. And he was showing them how to be on the computers." He was teaching them how to do basic internet searches, she said. "He didn't need any of us to go and show them how to do it or anything. He just wanted to introduce them to it, I guess."

She also mentioned that some patrons use library computers to access social media sites like Facebook. "There's one family where two girls . . . the two older girls would come in and they're obviously on Facebook. I don't know if they're allowed to . . . you know." On further inquiry, the librarian felt that her observation of Amish people on Facebook was pretty limited. "Honestly, it was probably just those two girls that I know for sure use Facebook. Umm . . . I would guess not the older ones. They are generally just using [the internet] for more . . . practical things."

For example, one woman came into the library because she had been diagnosed with a medical condition and her doctor asked her to watch a video to learn how to do a particular sort of massage. She came in and "watched it several times." Another gentleman used the computers to sell his organic produce in Chicago. Others used the computers to research horse-breeding techniques, stud services, or horse auctions. According to the librarian, "I've talked to a couple guys who needed help getting onto a horse auction site. They were either putting horses in there or there were horses in there and they wanted to see it." Other uses reported by librarians included acquiring a hunting or fishing license. Sometimes taking an online test was required to get the license, according to the librarian. "They have to do it through the state, so they'll come in and do that." She also said,

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"I've had young ladies print off their wedding programs or invitations. And many women are now representatives for companies who sell products to their social networks out of their homes, like Tupperware or Thirty-One Gifts [a company selling canvas bags]." According to the librarian, "They come in and put their orders online. Or keep in touch with the home company that way."

I asked the librarians what kind of content their (Amish) patrons most commonly checked out. One librarian said, "If it's the parents coming in, it's more the family-oriented stuff. Or if you get the teenagers, they try and check out the R-rated stuff. Stuff like that, which obviously they can't do. That's no different from the non-Amish." In describing general trends in the books checked out by Amish patrons, she said, "The men tend to go a little more toward the fiction. But the majority of it would be Christian fiction or children's books." Men, she believed, were more inclined to check out books by popular fiction authors James Patterson and John Grisham. "The women and some of the men went for the Christian fiction. Christian fiction is our biggest section," she said. I asked whether people came in to do medical research. According to the librarian, "Some people find out they're diabetic and they come in looking for recipe books and guide books and stuff like that. Yeah, there are a few. They know we can get books if we don't have them from other libraries. And they appreciate that."

The other librarian said,

> Well, again there is a range. They do check out a lot of kids' books. . . . The men will usually take out Westerns. They will take things out on military memoirs. . . . Some of the more recent wars. . . . Things that I guess they hear about through the grapevine. And people like John Grisham . . . some of those other authors. A lot of the women . . . we have a . . . it's called inspirational but it's mostly Christian fiction. And so those go out a lot, in the general population too. But they take those, but they'll also take romances or other things out. A lot of "how-to," not a lot, but some "how-to." Healthy cooking has become something . . . I've noticed some of the younger couples taking out. Building, books on building . . . hunting/fishing. The teen-agers will take those out.

I asked her if she thought that was representative of both Amish and non-Amish patrons. Her response was, "Yeah, I think so. It is pretty much, as far as what they read, more or less homogeneous."

My interviews with librarians revealed that the library was a site where members of the Amish population were coming to access information via

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multiple media formats. The library itself acted as a gateway to worldly information, and certainly there were a number of people I spoke with who disapproved of the information that it made possible for Amish people to access. I spoke to one minister and business owner who did not allow his children to go to the library. He liked for them to read and bought them books from *Pathway Publishers* instead. Nonetheless, the library seemed to be an increasingly popular place for Amish people to go to access the internet, videos, and books. Perhaps because it represented a workaround to owning and having access to this information and technology at home, it was seen by some as an appropriate annex of Amish public life in which it was acceptable to use these tools and access outside information for work, health, and pleasure. Despite the variety of media formats available to Amish library patrons, librarians believed that their tastes and preferences for content were not especially remarkable and closely resembled those of non-Amish patrons. Their preferences for popular fiction, Christian fiction, nonfiction, and children's books aligned generally with regional values and allowed them to educate and entertain themselves via visible, controlled media that they did not own themselves and were required eventually to return to the library.

These realizations prompted me to wonder whether a media's format contributed to Amish participants' aversion or affection for the information accessed through it. So I asked the publishers of *The People's Exchange* a question that might shed light on this. When discussing Amish preferences for outside newspapers, I asked why reading the *Chicago Tribune* in print would be different from going onto the *Chicago Tribune* website. The parents of the owner of *The People's Exchange* left the Amish church when he was young. He grew up in the area, speaks Pennsylvania Dutch, is in contact with Amish relatives, and, as a result, is still very connected to the Amish community, culture, and way of life. He said,

> A lot of it would just be the convenience. I mean you can carry it home and sit in your rocking chair and read it. You don't have Wi-Fi at home [as an Amish person]. But smartphones are becoming more prevalent. So that could be happening more. My guess is it'd just be the convenience of it. It's not something they could do. Until just in the last however many years that they've been allowed to.

My sense in talking with other participants was that it was not that they were against information coming in from the outside, because in a sense many relied on it for essential purposes. In situations where they believed

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that the information that was made accessible by new digital technologies endangered souls or the integrity of their community, their objections sometimes cited the materiality of the newer media formats through which the information comes as being disturbing, or they identified them as a distraction from appreciating where they were from (natural surroundings, culture, religion, family, community). Media such as cell phones and smartphones that were largely invisible were seen as less easily controlled than those that were visible, like newspapers and magazines—even if the information they made accessible was considered worldly. These were the types of media that they more often rejected or limited. These forms of media were often framed as offering a "slippery slope" where everything comes through and filtering is not possible. Visibility and control were often seen as connected, whereas invisibility was more closely associated with chaos and spiritual danger.

ATTENDING AMISH PAROCHIAL SCHOOLS TO CONTROL INFORMATION FLOWS

I had the opportunity to interview a few members and former members of the Amish State School Board Association. This organization governs a parochial school system customized for educating Amish young people and preparing them for learning a trade or getting a job after they finish eighth grade. I also visited two Amish parochial schools over the course of my fieldwork. In an interview with Stanley, a board member and minister, I was told, "Students learn math, spelling, reading, vocabulary, English/language arts." They do not learn social studies. There is no computer training in Amish schools. If students gain computer literacy, that comes after their schooling. In Amish schools, students have no internet access or computers. There are also no vocational skills taught in Amish parochial schools.

Twenty years ago, Stanley said, half of Amish kids went to public school and half went to Amish schools. Today, however, between two thirds and three fourths go to Amish schools and one third to one fourth go to public schools. Amish parochial schools, he said, "were a new idea" twenty years ago. As public schools became subject to consolidation, the Amish began organizing improvements to their own schools and working with government officials to ensure their legitimacy in their eyes. According to Stanley, "They were an experiment that worked." Students take a standardized test (the Iowa Tests of Basic Skills) every year, and they seem to

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be above average, according to Stanley and the other current board member. Fifteen years ago Amish school students scored low in vocabulary, he said. They have improved their score in this area and are much better now. According to Stanley, Amish schools are "running five months ahead of the national average and are five percent higher" in their students' mastery of test material.

The success of Amish schools has seemed to foster community cooperation and cohesion on a broader level. One participant called schools "the heart of the community." According to Stanley, "Teachers work closely with parents, church, and community." There is a monthly Parent Teacher Association (PTA) meeting where participants "iron out any wrinkles that might exist." At each PTA meeting, a parting song is sung. Each teacher has four grades and about twenty pupils. Two or three teachers may teach in the same schoolhouse. Stanley also said, "[the teachers] seem to be getting the job done" according to standardized test scores. The efforts that community members put into their children's educational system helps keep the community together. The importance placed on Amish schooling reveals a desire to maintain community control over what is taught and what kids are exposed to, as well as to keep social groups local, small, and well integrated within and across generational lines.

Often Amish parents have to decide whether to send their children to Amish parochial schools or public schools. In making this choice, they are likely to consider the informational, cultural, and social influences that the schools have on their child. According to Stanley, parents are likely to choose to send their children to an Amish school because, "[there] they start the day in prayer and by singing Amish songs . . . instead of other kinds of songs." Parents' decision about whether to send their child to a parochial school or a public school also involves price; it costs $800 to $1,000 per child per term to attend Amish schools. "When you have four to five kids that is a significant cost. Whereas public school is basically free," Stanley said. In this way, Amish schools also represent a means for maintaining social, intellectual, and cultural separation between the Amish and mainstream society.

USING INTERMEDIARIES TO CONTROL INFORMATION FLOWS

Amish participants commonly reported employing non-Amish individuals to use a device for them that they considered off limits for their own use.

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Using a technology *via an intermediary* involved making a specific choice to use a tool, often for business purposes, while upholding one's commitment to his or her Amish values, traditions, and way of life. This is a model of technology use that was developed early on to deal with telephone adoption (Kraybill, Johnson-Weiner, and Nolt 2013). Today it has been extended to limit transportation and has most recently been adopted to govern digital technology use as well. It is related to Kraybill, Johnson-Weiner, and Nolt's (2013) category of technology use "ownership vs. access," in which the Amish often make a distinction between ownership and access in their use of technology. In terms of transportation, Amish people hire drivers to drive them to weddings, funerals, work, shopping, and leisure activities that they cannot get to via horse and buggy. They also commonly pay to take public transportation, including trains and buses. Old Order Amish typically draw a line at owning a car or driving it themselves. They do this to make it inconvenient to use a technology that they believe endangers the sustainability of their close-knit, local bonds or diverts their attention away from the local community.

According to Dennis, a business owner, limitations on automobile operation and ownership and technology operation and ownership help people develop an appreciation for where they are from. Perhaps it is not surprising that the *use via an intermediary* model, then, has been applied in situations to govern technology adoption recently as well, because digital technologies are seen by many as vehicles for the mind to travel outside local Amish knowledge systems and for exploring worldly knowledge systems. A strategy for *internet management*, which involves outsourcing internet labor to a non-Amish person, is discussed in depth in chapter 6. Here a few other examples will show how this model for governance has been extended to limit new technologies in Amish communities.

I became aware of this model applying to digital technologies when, during one of our many conversations, Noah explained to me that sometimes Amish people think that they must use a technology for their business to compete in the modern economy. In such instances, they might hire a non-Amish person to use the technology on their behalf. Usually these individuals are trusted friends and fellow Christians. The Amish employ this kind of intermediary increasingly to do graphic and web design, taxes, and accounting. As noted earlier in this chapter, I interviewed the owner of a large advertising and printing company who had many Amish clients and

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customers. In addition to publishing the *People's Exchange*, he has increasingly handled digital advertising and public relations for his Amish clients. He sends "email blasts" to advertise wholesale wood furniture to retail stores and, at the time of our interview, had just started developing websites for Amish clients. At that time, he saw this as an area for future growth for his business.

PRAGMATICALLY LIMITING AND CONTROLLING ACCESS TO INFORMATION AND TECHNOLOGIES

Sometimes price and better functionality or efficiency also influence decisions to adopt new technologies. According to Perry, who owned and operated a cutting-edge technology company that provided off-grid power solutions, Amish people have begun adopting electricity so long as it does not connect them to the public power grid. Although the philosophy of maintaining a separation between the Amish and the outside world prevents them from hooking up to the public grid, many have opted for electricity generated by solar panels to operate tools and charge batteries. According to Perry, many families have switched to using solar electricity to power their home water pumps because the old ones that ran on compressed air would often rust. Solar ones, however, do not. The price of solar power has also dropped significantly in recent years. Fifteen years ago, when solar technology started, according to Perry, it was two to three times the cost of energy accessible by the public grid. "Today, you can get a panel system with a 12-volt battery pack, which you only have to recharge every four days, for $175. That just comes with the basics." At Perry's shop, he and his colleagues work with people to design and rebuild their homes' power systems. They prompt customers to think about what kinds of windows to buy and where to place windows to get the best cross draft. They suggest that home owners properly insulate and buy energy-efficient appliances. In this way, although the philosophy of maintaining separation inspires the Amish to remain detached from the public electric grid, they have adopted new technologies such as solar power because they are more effective and cheaper than older ones. Perry informed me, however, that solar electricity in the home is still a limited source of power and intrinsically tied to natural (God-made) resources. Without prolonged, abundant sunshine, the solar-powered water pump will not work, for example. Solar electricity among the Amish is intended for use as a utility and not as a

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means for adopting "conveniences" like radios, televisions, computers, or dishwashers, Perry noted.

MOVING FROM THE FENCE TO THE SWITCH

Scholars so far have conceptualized the Amish approach to adopting new technologies as a process of fortifying old fences, moving fences, and building new ones (Kraybill 2001). It has been shown here that there are multiple philosophical, cultural, social, and political mechanisms in place in Amish communities that work together to restrain and limit technology adoption, in addition to formal decisions made by official community leaders. In today's dynamic and complex sociotechnical arrangements, simply identifying where a fence should be erected no longer makes sense for the Amish. In a world where church leaders (and everyone else) perhaps had more control over the use of a technology because it was visible, it was easier to rely on the formal mechanisms of technology adoption that made public rules and established where fences should be. When a rule was made, people could reference it. People knew that a telephone must be in a shed outside the house. Whether or not one abided by this rule was visible for all to see. This simply is not the case with cell phones and smartphones.

Today, in some church communities, cell phones used for work have been explicitly allowed. In many places, however, explicit rules have not been made, and informal mechanisms for regulating technology adoption hold sway. Even in communities where cell phones have officially been adopted, informal mechanisms guide the use of other digital technologies. Amish church and business leaders believe that the unique material character of new digital technologies inspires them to rely on shared Amish values and convictions to guide proper technology use, instead of formal decisions that are inscribed into the *Ordnung*. In this way, using a cell phone is simply another annex of Amish life in which behaviors are inspired by Amish beliefs and values.

Bridges are increasingly being built that connect the Amish to the outside world, despite efforts to maintain social, intellectual, and cultural separation. Changes in the economy and exposure to outside information via media (among other things) contribute to this. In general, Amish businesses are becoming more and more dependent on outsiders for the resources that they need to sustain their communities. At the same time, many business

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owners have concerns about how to regulate communication channels. For example, Kenneth, a business owner, estimated that ninety-nine percent of products made in the settlement were sold to non-Amish people. Sam, a businessman who produced furniture, said, "I'm as dependent on the automobile as you are" [for example, to deliver his products]. Kenneth said that for businesses there must be compromises. Although he thought that digital technologies opened new channels of communication with the outside world that were useful for business, he also realized that it was difficult to open these channels without being able to filter out unwanted information to which they also provided access. "If we could sort the good from the bad, technology is not all bad," he said.

In fact, many participants noted the positive things that they experienced because they were dependent on the outside and modern technology. Floyd, a minister and business owner from northern Indiana, recognized that the Amish depended on the outside world for their medical care. For example, "We go to hospitals and want the best care. We're not against using it," he said. Timothy, a bishop from northern Indiana, called me seven months after I had last seen him during my fieldwork because he believed that it was important that I know "there were also a lot of good things that go along with [technology]." He thought perhaps he had been too negative about technology in his interview with me seven months earlier. He came across my business card and wanted to call and mention the good things too. He described a health situation in which his grandson's skull had not developed normally. They took him to a hospital in Indianapolis, and a surgeon repaired it, he said. "Now it looks great and he doesn't have headaches any more. That is a great blessing." He also mentioned using a continuous positive airway pressure machine to help him breathe while he was asleep. For Floyd, these were technologies that he thought made a positive difference in his and his family members' lives. Other participants reported researching genetic illnesses online and maintaining strong relationships with their physicians (who are always non-Amish). Nonetheless, according to Floyd, there is a fear that if they open the doors to technology and the outside world, "there wouldn't be any limits."

One bishop told me that he was not sure whether technical ways of communication for business were problematic or not. In his business he used a computer with two monitors to design blueprints for homes and check email. He thought that computers, however, could bring problems with

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them because they allowed access to evils via the internet. However, in general he believed that if people had convictions, they would stay away from the problems. As a church leader, he thought that instilling convictions occurred through talking to people and warning them about the potential dangers. He also believed that placing limits on use—for business only, for example—helped people use technologies responsibly. He still worried that members of his community would ignore history and allow new technologies to create a split in the Amish church—this had been the case, he said, when cars, the telephone, and new ways of farming emerged.

Others also thought that changes in the economy and professions and new technologies were changing the Amish way of life in troubling ways. Many believed that something was lost from the Amish lifestyle and culture as "progress" was made. Nonetheless, Sarah, a business owner, said members of the Amish community were still willing to come together in a time of crisis.

> It used to be people would come together and help one another do work at a silo-filling or a thrashing. They would show support that way, and this was a very good way to strengthen relationships in the community. Today, however, more than not they provide money. There is a lot more money flowing through the community today than before. Instead of going to provide physical help, people send money to provide help. The factory mentality is "go, go, go"; it's more of a fast pace. It is, however, always a choice to keep things simple. That should be the goal.

She believed that possessing certain values like honesty and integrity have helped her develop a successful business.

> We may not sell as much as other people do, but that's not the point. We feel like we have been very blessed. Amish is not a religion. It's a way of life. It's about the choices you make. We believe in the same God all Christians do. It's the choices you make on a daily basis to keep things simple and the pace of life slow.

In this way, despite changes, Sarah believes that it is possible to maintain the Amish way of life by making everyday choices.

In my interview with bishop Ryan, he asked me what I thought church leaders should do to prevent a fracture in the church. Although feeling extremely inadequate to offer this advice, I believed that I owed him an answer to his question. At the time, I told him that I thought reminding people of their history and identity was important. Having Amish

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forefathers, I thought, was pretty remarkable and unique and helped people feel that they had a purpose and were part of something larger than themselves. I also expressed that talking about technologies was important instead of ignoring the fact that they were being adopted. Looking back now, I believe that Sarah's sentiments would have also been useful for Ryan to hear.

Specifically, when I asked Sarah how she worked to ensure proper technology use in her family, she suggested the importance of drawing more attention to "the family altar." This encouraged the appropriate use of technologies without opening the door to unwanted interactions or information from outside. The family altar is a commonly understood concept among the Amish I spoke with. It refers to the fact that the home is a sacred sanctuary in Amish life where family bonds are maintained and daily spiritual education occurs. For Sarah, it "is the time when the family gets together for devotions" on a daily basis. Sarah told me she believes that today the family altar is more important than ever. For her it is crucially important "to convey Amish beliefs to young people because there is so much more out there in the [public] schools that could influence their minds, bodies, and spirits. We really need to stress our values at home more than ever before." In this way, instead of attempting to limit or control information coming into individuals' minds or natural groupings like the home, Sarah believes that focusing her family members' attention, studying Amish values, and connecting to one another through spiritual practice is a better course of action. In this way, like Shoshana Zuboff, Sarah finds the need for sanctuary essential for resisting the harmful impacts of increasing dependence on the owners and programmers of global information networks for economic survival. This is at the heart of Amish strategies for empowerment and cultural autonomy in an increasingly digital world.

Although Sarah highlighted the importance of the home, a bounded physical space, others though it was important to demarcate informational boundaries for sanctuary by curating their reading diet or founding and supporting Amish schools. These are techniques for calibrating their community's attention to control the information that entered their collective minds. They did this to protect their spiritual and social well-being and maintain cultural autonomy in a world where digital infrastructures are increasingly used to surveil and control users for the benefit of the owners and programmers of the infrastructures. In a conversation with John,

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a father and minister, who used email and the internet in his daily work as a manager at an RV factory, I asked if he shared the feeling that it was more important than ever to instill values in young children at home. He responded, "Most definitely. There has never been a more important time for parents to instill values and morals and character in their children than it is now. Because, if we do not, someone else will." John also thought that it was important to make sure the information consumed via the internet does not obstruct one's faith. He said,

> I have to really watch myself with the world wide web. The temptation there is to . . . I have to know every single detail about every single thing. And sometimes that interferes with one's faith . . . in what we believe to be fact. And so, sometimes, you know, and I just had an elder remind me of that last evening. Where he said, "But John, if we know all the details, wouldn't that diminish our need to have true faith?" And you know, so, I can kind of see . . . I can see his viewpoint.

John informed me that there were some questions among authorities about where the biblical Mt. Sinai actually stood. He said some people thought it was in Egypt and others had now discovered that it could possibly be a mountain in Saudi Arabia. John was sharing this information with the elder, who asked, "Do you really need to know, John, which mountain it was that Moses went up and God came down to? Or do you just need to have the faith that, yes, God did come down on the mountain?" In this way, John and Sarah articulated a means of regulating flows of information made possible via new digital technologies by targeting one's mental focus on spiritually enriching information rather than limiting one's use of technology altogether.

These perspectives illustrated nuanced views about how to regulate technology's influence on Amish ways of life. John and Sarah articulated ways of enacting informal constraints on digital technology adoption and use. These were aimed at controlling the flows of information that they saw as particularly harmful for instilling values in young people and maintaining mental focus on spiritually edifying information and experiences. At a community level, such informal constraints are similar to flipping a switch on a network that allows only certain packets of information to flow into a node (an Amish individual's mind) or an isolated cluster of nodes (an Amish community) from a larger node or more interconnected area of the

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network (the outside world). The Amish clearly recognize their dependence on outsiders for business, health care, transportation, and information. As times change, it seems likely that the formal mechanisms and cultural fences approach to limiting technology use will be increasingly augmented by this "controlling the switch" approach. By having their hand firmly on the lever that controls the switch, the Amish continue their quest to limit exposure to generally ubiquitous information that they believe could endanger their cultural autonomy, as they have for decades, by separating themselves geographically from worldly others and information.

Seen in this way, a dynamic, multimodal decision-making process becomes visible. In addition to formal, public, democratic political procedures, informal efforts aimed at training and socialization play an important role in governing the adoption and use of new digital technologies in Amish communities. According to Henry, a business owner and Amish School Board member, "Going forward young people will feel pressure from the outside to start using computers and the internet, but they will also still feel pressure from within not to use it." Another business owner and deacon noted that a balance must be met where personal convictions and limitations on use complement each other.

Additionally, we have seen that particular uses of technologies, or workarounds, adopted and diffused through Amish communities act much like clothing, language, and transportation vehicles in Amish daily life. They are symbols of one's Amishness and association with the Amish community. By deciding not to have a computer visible in one's retail store, which is accessible to the public, an Amish business owner shows deference to his or her church leaders, fellow church members, and the broader society of Amish people who may patronize the establishment. This is not to say that the computer is not an essential tool for the business. Its inconspicuous use, however, sends a strong message. An adopted workaround acts to communicate to other in-group members that the adopter is part of the group and they share the same values. At the same time, the adopter shows that he or she is not "of the world" or associated with outsiders and reinforces the group's boundaries and identity as separate from mainstream culture and society. This boundary work also acts to protect the Amish from assimilation and to preserve their cultural autonomy.

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5

CRITICAL AMISH MAKERS

According to Mark Hatch, author of *The Maker Movement Manifesto* (Hatch 2014), *making* is a practice that is fundamental to being human. Indeed, the increased amount of information about do-it-yourself (DIY) making practices available through the internet today has ushered in a flurry of localized making practices that encourage the exercise of human creativity. These practices include knitting, homesteading, baking, home improvement, woodworking, mechanical repair, three-dimensional printing, robotics, and all manner of crafting, hacking, and tinkering. According to Hatch, by (re-)purposing and creating physical things, we express ourselves and feel whole. The things that we make are parts of us and embody portions of our souls. Hatch's manifesto speaks to a growing number of people who have one foot squarely in the information society; they use the internet to guide them in their making practices. The other foot is stepping back to a time when human bodily labor was necessarily tied to satisfying a particular end (gardening to feed, instead of as a hobby, for example). This recent rise in making practices supports Hatch's notion that we experience satisfaction when our means (human labor) are more closely tailored to fulfilling our intended ends (functional and moral goals). Certainly it is only in our advanced stage of information-based capitalism that we can describe making practices as a distinct or novel human activity. For much of human history, of course, making was the only method available for satisfying basic human needs.

Throughout the industrial age and now in the information age, the Amish have embodied philosophies similar to those at the core of Hatch's maker's manifesto and have adhered to the long-standing tradition of making as a primary form of work. Indeed, influential celebrators of hacker and maker culture such as Kevin Kelly, former editor of the *Whole Earth Catalog* and *Wired* magazine, revere the Amish for exactly this (Kelly 2010). Cabinetmaking, machine building, carpentry, buggy making, metal working,

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furniture making, woodworking, and fence building are common professions among Amish businessmen today. Generally, they learn these skills from fathers, uncles, and grandfathers. Among Amish businesswomen, many have craft or fabric shops or make quilts or food items such as noodles, jams, and candy to sell to tourists. Although the Amish are generally moving out of agriculture as a professional enterprise, nearly all Amish homesteads have impressive vegetable gardens that feed the family year-round. Amish settlements are also tourist destinations for people who seek high-quality, tradition-minded craftsmanship in food products, furniture, and fiber arts.

The fact that the Amish have also begun making digital technologies, such as the black-box phone introduced in chapter 1, should come as no surprise. The black-box phone, however, is just one of many examples of an increasing number of communication technologies developed for Amish people by Amish people. These devices may seem unusual to outsiders, but they are products of a normal process of making that is perhaps so mundane that it is often dismissed as politically insignificant. Quite the opposite is true, however. These devices are crafted to most precisely complete professional goals, while limiting the negative impacts that come with digital communication today. The Amish recognize that this most certainly has political implications. Making in general, and making of digital technologies in particular, further enables the Amish to exercise their creativity, resist surveillance, and control and sustain their way of life in the digital age.

This chapter engages the body of scholarship on *critical making* to investigate mundane Amish making practices and their political implications in an economy in which power relationships are increasingly asynchronous, digital, and global. Critical making is an emerging concept in science and technology studies focusing on the social arrangements surrounding hacking and DIY practices. Matt Ratto employed the concept to "connect two modes of engagement with the world that are often held separate—critical thinking, typically understood as conceptually and linguistically based and physical 'making,' goal-based material work" (2011, 253). According to Carl DiSalvo, "'Critical making' suggests a new form of design, through which the political qualities of an issue are materialized by participatory means" (2014, 96). Although existing scholarship primarily conceptualizes critical making as an intervention orchestrated by researchers, here, following Ashton (2015), making is explored as an everyday phenomenon that has

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always been embedded in the evolution of the human species' sociotechnical world. By understanding how the Amish make digital technologies to allow them to better fulfill their functional and moral goals, we will take a broader view of what critical making is. First, the everyday circumstances that afford and constrain Amish creative practices will be documented. Second, I will show that the mundaneness of these practices allows the Amish to wield distinct political power and control over the fulfillment of their values and their cultural autonomy in an increasingly fluid, networked, and global ideological world.

Because it is more often through technologies that the Amish interface with the outside world, the manner in which they put technologies to use reveals a great deal about the relationship that they want to have to the larger society. In addition to the black-box phone, I have observed an array of Amish *workarounds* that reflect local values and are determined by social context (Ems 2014). The particular assemblage that comprises a workaround can also signal one's Amishness or shared group identity.

Motivations for configuring workarounds may be political, cultural, functional, or a combination of these. The workaround provides a point at which users have agency to change the system to work better for them, according to their values and needs. Thus, an examination of workarounds highlights a specific, value-inspired practice that works to facilitate communication and reproduce Amish identity. Scholar of interaction design and cognitive science, Donald Norman (2008), notes, "Workarounds are truly revealing both in needs and solutions." In this way, a workaround acts as a value-inspired tweak to a way of doing things that calibrates the means to the desired ends, especially when the status quo is seen as inadequate on a functional or moral front.

For example, according to multiple Amish leaders, when a technology such as a smartphone or cell phone is used by a member of an Amish community, it is considered impolite to do so ostentatiously. According to Noah, the visibility of one's digital technology use should be minimized in an effort to show respect for shared Amish values, heritage, and tradition. In a discussion with him and another participant, a business owner who used a computer and the internet daily in work, both men agreed that people used these tools, but because of their desire to show deference to the community and its values, they did so "out of sight" and "they just didn't talk about it" or they "knew who they could talk to about it and who they

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couldn't." Thus, in an effort to bring about the desired ends of efficient-enough communication via a cell phone or smartphone while showing deference to Amish community leaders, these individuals created a work-around of sorts. They used their devices, but only out of the sight of others who they knew were likely to disapprove.

I interviewed Ben, a thirty-year-old office manager at a company that sold $2 million dollars' worth of product per year on a popular online auction website. He sat at his computer under electric fluorescent lights during our conversation. Ben used a flip phone, a computer, and the internet at work. In his church, cell phones were allowed. He said, "I wouldn't take my cell phone to church or answer it at church or show it to the neighbor and say, 'look at what I've got' if their church doesn't allow it. You have to use it respectfully." Ben also believed strongly that if used responsibly, technology "was not a big deal." In fact, in contrast to other participants, he did not care much about it. He said that many senior bishops do not want technology and don't understand it. At the same time, he understood these leaders' intentions. He thought that technology was going to keep on moving forward, though, and it was useful in running a successful business. Sure, he said, he and his employer (a family member) wanted to keep their close-knit community together, but they also believed that "you have to make the most of what you have and this is what we have." He said, "You know, we can do this without the technology, but why would we? We're using technology in a way that doesn't conflict with our morals."

At the beginning of my fieldwork in one settlement, I was accompanied to a few interviews by the director of a local historical society and museum, who helped get me acquainted with the community. The director was with me when I interviewed Dennis, a successful business owner whose construction company had a website. He told us how he owned (but did not drive) trucks for his business. He described his multiple travels to Europe on a luxurious cruise ship. He told us that he liked the "classy" things in life and impressed us with his extensive volunteer work on numerous elite community and bank boards of directors. He told us that his wife used a smartphone at home to keep in touch with family members who lived far away. His three sons were co-owners of the business now too. One of them had not joined the Amish church. This made it possible for him to use graphic design software to create advertisements for the store and drive the trucks, among other things. (Presumably this was not the reason why

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he did not join.) When ministers preached against the use of new digital technologies, Dennis "let it go in one ear and out the other," he said. He did not think that new technologies were a danger to the Amish community if used in the "right" way. He consulted his conscience to ensure that he and his employees used technologies in ways that did not conflict with their morals. From his perspective, new technologies enabled him to live the kind of life that he wanted and allowed him to be successful in business. He said people realized that he (and his sons) "couldn't run their multimillion-dollar business without these technologies." As a result he was able to provide financially for the community and was a leader for the community in many ways. He also thought that it would have been better for the Amish in his settlement to have adopted new farming technologies twenty years earlier. That, he said, may have been able to keep them in that profession. Not adopting new technologies was a bad choice and pushed people out of farming into jobs such as construction that forced them into closer contact with the outside. Today about one hundred construction crews leave the settlement daily, he said. "Tradition isn't everything."

Dennis's response to interview questions was markedly different from anyone else I met in my fieldwork. Nonetheless, it was clear that his dedication to Amish values and association with a shared Amish identity were very strong. In describing his place in the community, he told us, "I'm of the community but outside it. I walk the fence." The Amish were no different from anyone else, he thought, and he had many friends outside the church. He grew up "running around" with non-Amish, he said. In lifestyle choices, though, "I am still with the Amish. I was raised Amish and hope to die Amish." There was also evidence of Dennis's strong association with a common Amish identity visible in the retail shop associated with his business. On walking in, one could not help but notice the various ways that his company reflected Amish values and traditions. There was no electricity in the shop, except that powered by a new gas generator. (He told us that a diesel generator had done the job previously.) Lighting was both natural (skylights) and powered by gas. For sale in the shop were gas-powered refrigerators—products aimed at Amish, not non-Amish, customers. Workers wore Amish dress. There was no computer visible in the business, though he owned multiple computers. To show respect for Amish values and his fellow Amish community members, he put the computers and other office technology in a different building that was not accessible

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to the public. Also, when he traveled, he did not drive or fly to respect his church's rules.

Getting to know Dennis and other Amish businessmen showed me that even the most advanced and savvy adopters of new digital technologies believed strongly that they should use technologies in ways that reflected Amish values and lifestyle choices. They did this as a show of respect for the church and its members. Likewise, as noted in the previous chapter, Amish library patrons consume information and media in ways that generally align with Amish (and in many cases rural American conservative) values. Instead of owning media or paying for unlimited access to "worldly content," Amish people go to the library, which makes access temporary and inconvenient when compared to the option of owning content.

It seemed to me as an outside observer that new ways of using digital technologies and accessing information do not seem to indicate that the demise of Amish bonds and culture are on the horizon. On the contrary, informal social constraints seem more powerful in regulating behavior and protecting cultural autonomy than the church's communally ratified rules. Certainly these forces are compatible and work together to moderate the assimilation of the Amish to the outside world, as noted earlier. Additionally, there are many cherished points of connection, unrelated to technology, that help keep the community together. These include small-scale church services located in the home; time for lunch and fellowship after the service; and a shared history, heritage, language, and common values (or even just the appearance of common values). All these act as symbols that show allegiance and deference to the Amish church. They work to define and reinforce the evolving geographical and informational boundaries that separate the Amish from the non-Amish and act as markers of group identity, helping members of the community feel rooted and known.

It should be noted that the process by which the widespread adoption of Amish workarounds occurs is often contested and negotiated within Amish communities and differs across districts and settlements. There are still noteworthy observable large-scale similarities and patterns, however, that apply across localized areas of difference. With this in mind, in the pages to follow, a general history and spirit of Amish innovation will be described that both inspires and constrains the current development of Amish workarounds. Then, observations of Amish-created sociotechnical artifacts and arrangements will be presented. To illustrate the widespread circulation

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of these artifacts and arrangements among the broader Amish population, content published in *The Plain Communities Business Exchange* (*TPCBE*), a national Amish trade journal, will supplement field observations. Most of *TPCBE's* readers do not have access to the internet and rely on mailed publications to learn about and buy new products that meet their family's needs. *TPCBE* contains advertisements for products made by people from plain communities, which gives the publication the feel of a catalog. It resembles a version of the *Whole Earth Catalog* meant for Amish living. According to the *TPCBE* website, *The Plain Community Business Exchange* is

> . . . [readers'] primary way to stay connected with happenings outside of their community. Many of these people also advertise their products to other plain communities and then ship them via UPS, FedEx and Mail. This creates a network that has been established years ago and still continues, however it is on a much larger scale in our current day and age. The networking of plain/conservative communities has always been an interesting subject and has captured a large audience. We are proud to be a part of this communication between suppliers and purchasers and hope to continue to earn their loyal support in return.

In the *TPCBE* one can find information for purchasing nearly everything an Amish home business or household might need for daily operation, from ice cream makers to equestrian supplies to off-grid electric office equipment. In addition to advertisements, the publication contains a number of articles that explore issues that plain business owners might face in their work lives. It is educational in the sense that the articles are often written by experts from the plain community on topics such as finance, management, or travel. Articles often consist of real-life stories that illustrate a way to overcome a particular type of challenge in the workplace.

Thus, the appearance of products in *TPCBE* ascribes a legitimacy to them and indicates for many Anabaptist readers that adopting them is acceptable given shared church rules. Products not agreeing with (general) Amish sociotechnical norms are not likely to appear within this journal's pages (e.g., an ad for an automobile, radio, or television). However, it is common to see ads for internet-disabled word processors and "plain cell phones," which do not have the ability to text, email, or surf the internet. In this way, the technologies that appear in this publication communicate standards of acceptability among Amish business owners. A survey of these artifacts demarcates the boundaries within which it is safe to create, innovate, repurpose, and use uniquely Amish technologies.

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A SPIRIT OF AMISH MAKING

The continuity of Amish professional traditions today is the result of shared religious beliefs that were articulated by the earliest Amish revolutionaries in Europe during the seventeenth and eighteenth centuries. These beliefs have inspired individuals to live a practical, simple, and humble lifestyle for centuries. Adherence to these beliefs today continues to shape occupational preferences among Amish workers. Although most early Amish people were farmers, it was only in the past thirty years that this occupation became outmoded.

Based on his observations of non-Amish workers today, a minister and furniture maker believed that "people in the United States can't make things any more. People need to humble themselves and make something useful." This, he thought, would help reduce unemployment in society. These sentiments capture feelings expressed by many other participants, which suggests that the type of work one chooses to do should be constrained by actual (not manufactured) demand. Furthermore, making products by hand (if not growing them) should happen at a small scale so family members can work together and celebrate their collective success. This, they believe, is inherently more rewarding than resorting to automatic production methods that fracture human beings from each other and obscure the production process.

These particular ideologies contribute to the reproduction of a distinct spirit of Amish making that uniquely inspires and constrains acceptable types of production. In this section, I will describe the essence of this spirit by discussing its transposition during a macrolevel shift from farming to small business in recent years. To do this, I begin by exploring what "success" means in Amish business, then investigating assessments of the Amish as *hackers* and describing a visit I had with a self-taught seventy-year-old Amish engineer who designs and makes sophisticated high-tech machines by hand using pneumatic (air, not electric) power.

WEATHERING THE CHANGE FROM FARMING TO SMALL BUSINESS

In their book *Amish Enterprises: From Plows to Profits* (2004), Donald Kraybill and Steven Nolt describe the macrolevel economic shift from agriculture to industry as a "mini-industrial revolution" that transformed Amish society in virtually one generation. Although this transition occurred for many in the West in the eighteenth and nineteenth centuries, the change occurred

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for the Amish only in the past thirty years or so. The fact that this transition occurred so quickly has allowed the spirit and philosophy of Amish work, which endeared farming to them for centuries, to be handed down to the first generation of businessmen in only one generation.

In his study of successful Pennsylvania and Ohio Amish business owners, Erik Wesner (2010) asked about business owners' recipes for success. His participants thought that business was a vehicle for doing "something more important" than simply making a commodity of monetary value. In addition to making money, their success hinged on an ability to reproduce the community and its social structures and spiritual values. A successful Amish enterprise was not primarily measured by its profits. Whether or not the profits were responsibly used (according to Amish values) was also a key measurement of success. Such uses included creating jobs for others in the community, paying for community resources such as health care, providing housing and education, and engaging in philanthropic activities.

These measures of success are in large part inspired by the Amish philosophy of the *two-kingdom concept*. According to well-respected Amish opinion leader Joseph Stoll, it is a fact that "there are two kingdoms—the world's system and Christ's kingdom," and "there needs to be separation between the two" (Stoll 2013, 12). In this view, the world's system and Christ's kingdom are governed by different sources of power and authority, and each functions according to a different logic. In the world's system, power and authority are determined by money, pursuit of liberty, individualization, allegiance to a nation state, bureaucracy, and so forth. In Christ's kingdom, dedication to God, family, community, and tradition determine power. Stoll sees these as two distinct political systems that are fundamentally incompatible with one another.

According to the church leaders interviewed for this book, maintaining separation between the Amish and non-Amish world is more important than expanding profits, power, or efficiency. For an Amish entrepreneur who is guided by such teachings, the adoption of technology simply because it affords efficiency or leads to profits does not fit within the Amish worldview; defining professional success by commercial competitiveness alone is the wrong metric. Most business owners I talked to simply wanted to have enough work to live comfortable, low-stress lives while still being able to provide for their and employees' families. Maintaining this separation, for them, required certain limitations on technology use.

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AMISH HACKERS

In his 2010 book *What Technology Wants*, Kevin Kelly, former editor of the *Whole Earth Catalog* and *Wired* magazine, describes the spirit of the Amish making culture by referring to the Amish as *hackers*. It is unclear exactly what kind of hacker that Kelly means, because the term has been used to describe computer revolutionaries and master code breakers with both benevolent and malicious intent. What is noteworthy here is that he commends the Amish for their (apparently general) tendency to create and repurpose things according to their goals and values. As he came to know members of Pennsylvania Amish communities in his early twenties, he saw that they built a world inspired by their spiritual beliefs. He believed that their unique patterns of technology adoption were intended to bring about human well-being and contentment. This inspired Kelly to begin answering existential questions about the role that technology plays (or should play) in the lives of human beings. In his book, Kelly posits a larger theory of technology's relationship to society; he uses the idea of Amish hackers to provide lessons for non-Amish about how to selectively choose which technologies to adopt to optimize the use of technology for individual contentment in an increasingly high-tech world (2010).

On his visits with the Amish, Kelly found them to be "ingenious hackers and tinkerers, the ultimate makers and do-it-yourselfers" (2010). He described a woodworking shop that had high-powered machines—all running on pneumatic power, or "Amish electricity." Amish woodworkers (among others) have created such a demand for these devices that there is now an entire cottage industry in retrofitting tools and appliances to run on Amish electricity. A retrofitter might buy a heavy-duty blender, take out the electric motor, and substitute an air-powered motor. Then, "bingo, your Amish mom now has a blender in her electricity-less kitchen" (2010). Kelly also observed pneumatic sewing machines and washers and dryers that were equipped with propane power. "In display of pure steam-punk (air-punk?) nerdiness," he said, "Amish hackers try to outdo one another in building pneumatic versions of electrified contraptions" (2010). Their mechanical skill especially impressed Kelly because they did not go to school beyond the eighth grade. "They love to show off their geekiest hacks," he said.

Kelly concludes that we owe Amish hackers a large debt because they alert us to our growing dependence on large-scale technological systems.

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Kelly's observations and analysis are relevant here because Amish entrepreneurs are characterized as using mundane methods of everyday productivity that act to bring about the well-being of individuals and society. In contrast to other studies of critical making, in which the researcher orchestrates a focus group–like problem-solving scenario for participants, with the instructions to think about how to design a technology that will solve a social problem, the Amish are here observed mundanely and regularly embedding the solutions to social problems into their technologies.

THE REVERED AMISH MAKER

In my fieldwork, it was common for participants to tell me about their work, give me a tour of their workshop, and show me how they made whatever it was that they produced. On one occasion, I showed up unexpectedly at a machine shop to interview its owner, seventy-year-old Paul. My close contact Noah suggested that I visit him. I assigned no special importance to the recommendation because Noah often connected me with people in his settlement. Noah did not give me any specific information about why he thought that Paul would be a good person for me to talk to. Later, however, I learned that Paul was something of a celebrity in the community.

Paul was very humble and unassuming. On the winter day when I showed up at the workshop, which was located across the street from his house, I walked into a dark but warm retail store where small metal contraptions such as hardware, carabiners, lamp parts, plumbing parts, and spare machine parts were for sale. After explaining to the Amishman behind the counter who I was and why I was there, I asked if Paul was available for an interview. He told me he was. While I waited for Paul, I admired an old wood stove that warmed the room. Although it looked old, I learned that it had recently been converted to burn natural gas instead of wood. The items for sale in the shop were obviously highly specialized but mostly unidentifiable to my untrained eye. A few customers came in to chat with the clerk as I perused the merchandise.

When Paul was ready, we went back to his office. He was a slight man with a gray beard and bright, engaging eyes. In his office, I introduced myself and began asking him some questions. I quickly realized that he was having trouble hearing me. When he told me that he indeed had problems with his hearing, I was worried that my time with Paul might not be

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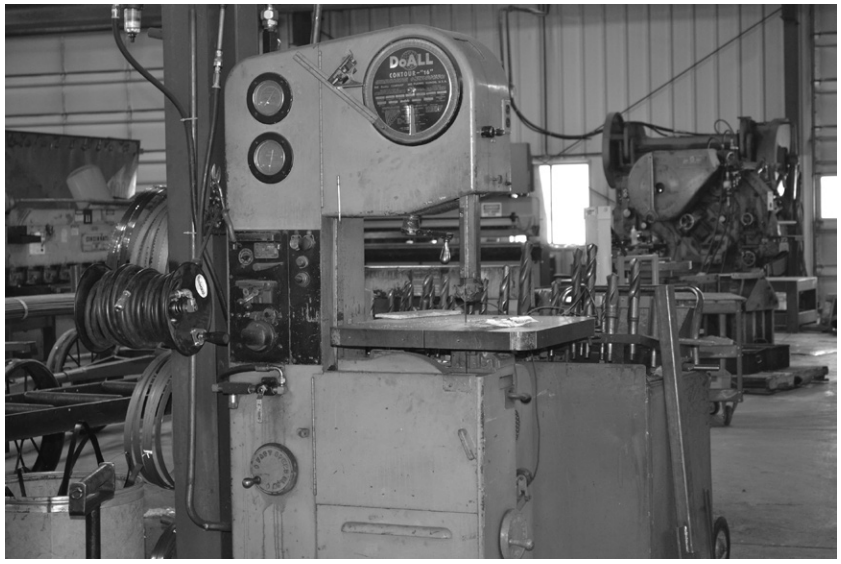

Figure 5.1
Handmade pneumatic drill press.

worthwhile. Indeed I did not get to ask him many questions; however, my time with him was some of the most valuable time that I spent in the field. I quickly realized that Paul was used to providing tours of his business. (This is when I began to understand that he was something of a celebrity.) Over the course of an hour, he showed me his machine workshop and his design studio where he created custom, handcrafted machines from scratch. On his business card, it says that the business is composed of machinists and steel fabricators. They manufacture farm equipment including "hose assembly and fittings, power transmission products" and "all types of pneumatic components." On the day that I visited, just before lunch, it appeared that there were ten other employees working in a large shop with about twenty different pneumatic machines. (Paul and his colleagues used them to create other machines.) Two of these, both pneumatic drill presses, are pictured in figures 5.1 and 5.2.

I learned that Paul and his coworkers built custom machines for highly specialized tasks. Some of the machines were electronic, and some were hydraulic or pneumatic—made for non-Amish as well as Amish customers. His workshop, however, was powered entirely by hydraulics and

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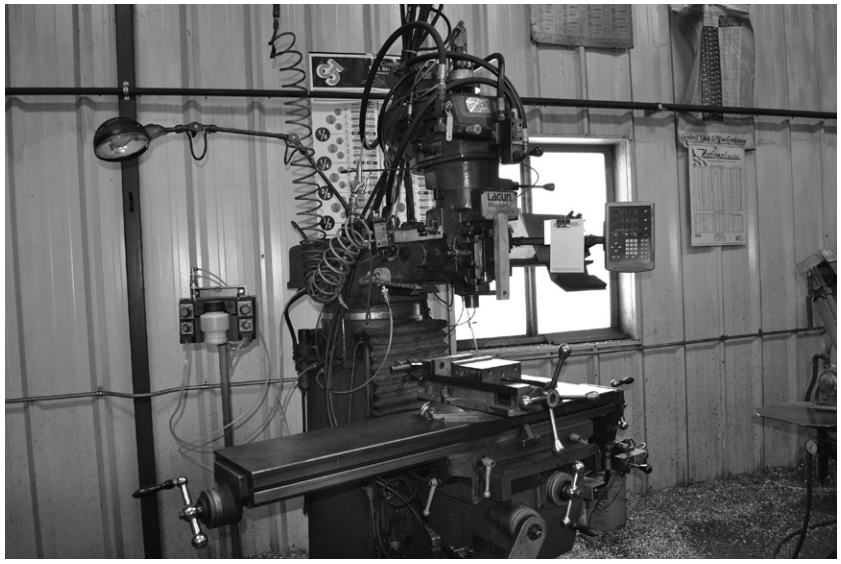

Figure 5.2
Handmade pneumatic drill press.

pneumatics; there was no electric power used to operate computers, lights, or mechanical devices of any kind.

His customers come to him if they need special custom machines, he said. Over the years, he has built many machines. "Often," he told me, "people will bring in one piece and I will build a machine that will make that piece work." Although he designs and builds both computerized and noncomputerized machines, he prefers to contract out the computerization to a local non-Amish company. He told me that he understood electronics but chuckled as he said, "I'm too old to learn how to master it now." He said that he makes automating machines one by one. He and his colleagues do the soldering, cast all the metal pieces, and assemble them. They also produce custom machine parts on request. For example, he showed me a heavy metal cylinder about four inches tall and six inches wide with thick walls. It had grooves dug into the outside of it. Paul said that he could sell this device for $500 to $600 cheaper than his competitors who used automated machines. It took a lot of time to program the automated machine to make a custom piece, according to Paul. He said, "I can do it cheaper because all the programming's in my head." Paul's primary

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Figure 5.3
Hydraulic machine that Paul designed and built to make metal tractor tires.

advantage over his competitors was his ability to make a custom piece at an advantageous price.

Seventy years old at the time of our meeting, Paul learned his craft by working alongside his father as a young boy. When his dad started out, they mainly made farm equipment and machinery, Paul said. On my tour, Paul showed me how they still make metal tires for Amish tractors using his handmade machines (figure 5.3). In many conservative Amish communities, tractors can have only metal tires so they cannot be driven on the roads or used for motorized transportation. Metal tractor tires were one of Paul's best-selling products (figure 5.4). His company shipped them to Amish communities in Wisconsin, Missouri, and other places across North America.

For Paul, the philosophical and religious values of his clientele determined both what was produced and how it was designed and manufactured. Paul's customers, who adhered to Amish rules limiting the type of tire that one could install on a tractor, created enough demand for Paul to make a living producing metal tires. If his customers valued efficiency and profits over religious tradition, they would certainly purchase rubber

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Figure 5.4
Metal tire made by the tire-making machine, with stacks of inventory in the background.

tires for their tractors from anonymous mass producers instead of the metal ones, which cost more and encourage slower farming processes.

Paul also uses hydraulic power instead of electricity to make the tires, based on his dedication to Amish values. In this case a dedication to Amish values is a competitive advantage when serving Amish customers. By signaling one's Amishness through technology use, one's values are on display to others. Paul's Amish customers admire this and show their support through market-based transactions (among other feedback channels). Thus, in contrast to an economy in which purely rational logic drives buying decisions, in this case spiritual, political, and ideological motivations guide buying decisions and determine the economic success of a proprietor.

AMISH "CONSTRAINTS" BEGET INGENUITY

Paul's decision to utilize older design and production methodologies to create custom machines and machine parts is constrained by his religion, his family, and his community. Yet these "constraints" have acted as a framework that inspired Paul's creativity and talents over decades. Paul became motivated to engineer machines by working alongside his father when he

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was young. Learning to design things by hand, as his father did, fueled his passion for designing high-quality custom metal products. When I asked him how he learned to do his work, Paul said that someone brought a broken spring from a buggy into his dad's old shop. The person needed it replaced. His dad drew a blueprint of the spring by hand. Paul copied the blueprint over and over again. He told me he was so amazed and excited by the drawing that he became obsessed with it and started drawing blueprints of all kinds of things.

Paul believes that an important art has been lost because engineers today learn how to design only on a computer. "[Today's engineers] can push buttons and draw up designs but they don't know if they could ever build it," according to Paul. He told me that designing and building machines by hand allows him to learn more about the engineering process than he could have known if he had simply learned to configure a blueprint using computer-aided design (CAD) software and sent it off to a manufacturer to build, as most machine builders do today. To provide an example, Paul explained that he learned how to *sequence* when drawing a blueprint for manufacture and that this was an important skill that helped him create high-quality custom machines. Unfamiliar with this term, I asked Paul to explain what sequencing was. Sequencing, he said, is a design technique that involves drawing all sides of a machine individually on their own blueprint. Having a blueprint of each side of the device allows the builder to see the side up close and to understand how the components fit together. Each side of the device is drawn in relation to the other sides, and they flow according to a particular sequence so that the manufacturer knows which side is which. Paul and his employees worked with an electronic engineering company that used computers to design its blueprints. Often Paul hired this company to design and install the electronic or computer components of a machine that he had designed and built. The engineers who designed the blueprints on a computer, however, "didn't know how to sequence," he said. According to Paul, on many projects, the CAD engineers did not know that they had assembled blueprints in the wrong sequence. When the drawings were out of order, it created problems for the people in his shop as they began to build and assemble the device. I asked Paul why he preferred blueprints drawn by hand. Very humbly, he told me that drawing blueprints by hand was simply how he learned to do it (figure 5.5). It was not better or worse than doing it by computer. He thought that at some point, the men in his shop might even adopt computers to design their machines.

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Figure 5.5
Hand-drawn blueprints in Paul's office.

While he was the main designer there (and he was), however, their blueprints would be drawn by hand.

INTUITION AND ITERATION

In designing and producing machines by hand, Paul developed an intuition about how the two modalities—design and production—come together in a world in which they are commonly seen as separate parts of the manufacturing process. This makes him an extremely rare and very valuable resource in his community, and people often come to him to help them solve a problem. Because he has a relatively small shop, he is able to design a product by hand, visualize it, and go right out into his workshop and build it. Because he has been doing this work his whole life, he knows what challenges are likely to emerge in the transition from design to production. Because a computer does not mediate the connection between designer and creation, it is easier to work out these kinks as the device is built, according to Paul. By drawing the blueprint of a new creation by hand instead of on a computer, Paul develops a certain understanding of the device before it is built that helps him envision problems and solve them before actually building the machine. For example, in Paul's office, we spent the majority

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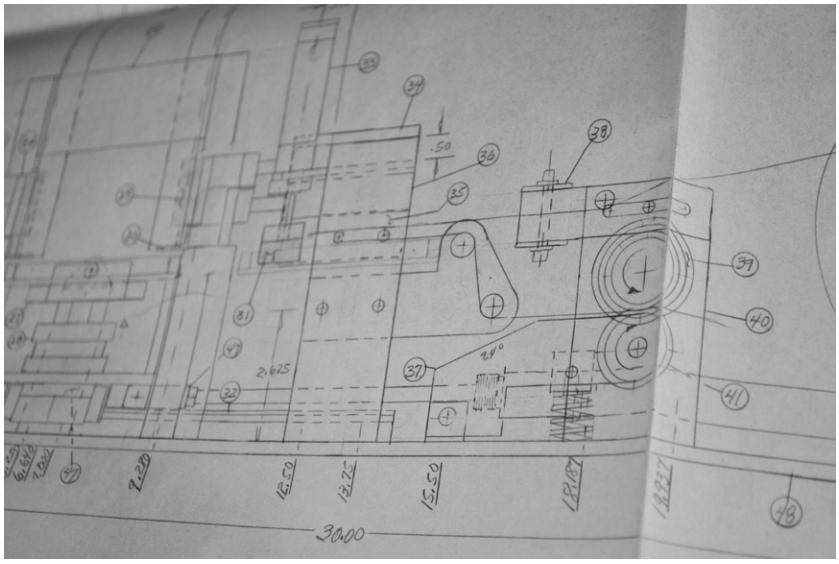

Figure 5.6
Blueprint of Paul's custom-built label-making machine.

of our time discussing one of his most unique innovations—an electronic label maker. He showed me a stack of blueprints (figure 5.6) that he drew when designing the custom machine for a client. He described some of the issues that he experienced while building it and how he worked them out iteratively through observing the machine's functionality and then making adjustments. He was able to make adjustments based on the tacit knowledge that he had accumulated while designing the device by hand.

Because Paul designed the machine by hand and built it in his workshop, which was a few feet away from his office, he could go back and forth easily between modifying his blueprint and making changes to the physical machine. For example, when he started assembling the electronic label-maker out of the parts that he had cast in his workshop, he realized that it was not working like he wanted it to. So he returned to his office and designed a mechanism that would introduce a puff of air that would separate the label from the backing as it was going through the machine. This addition was key to the proper functioning of the machine. Paul was satisfied with the final product (figure 5.7). According to Paul, because of the tacit knowledge that he had developed in designing the machine by hand,

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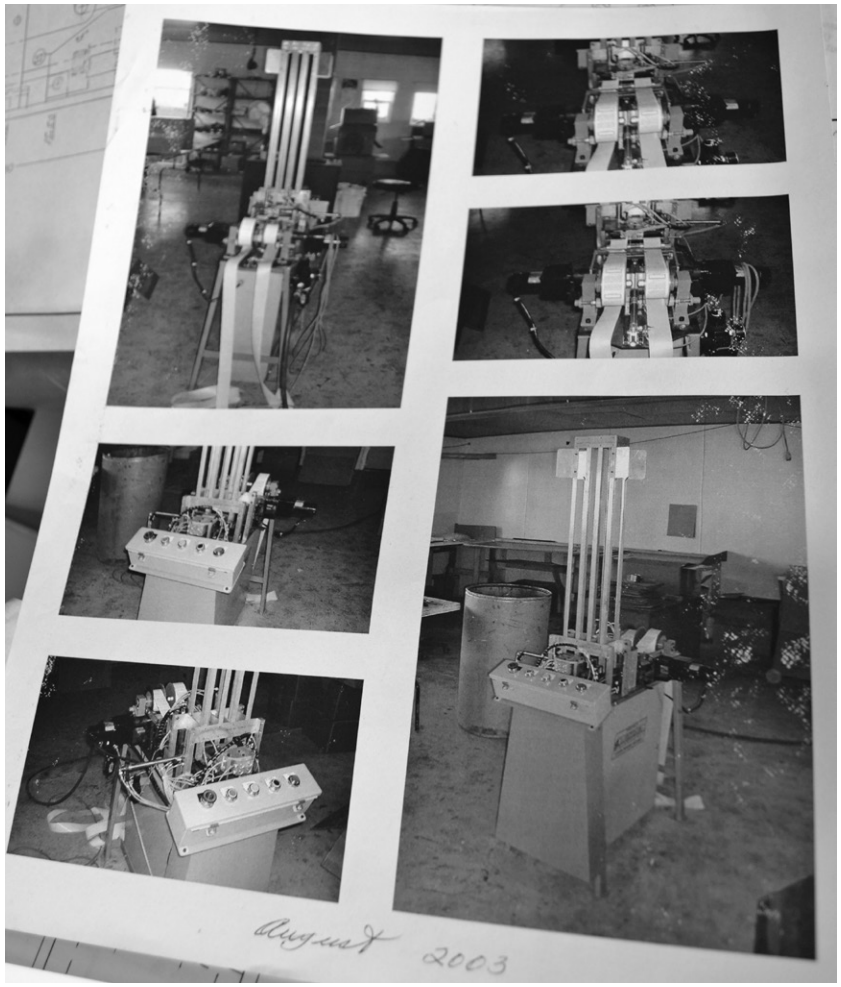

Figure 5.7
Paul's photographs of his hand-drawn, custom-built electronic label-making machine.

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along with his ability to iteratively design and build the device, he could make adjustments and improve its function in ways that modern design and manufacturing processes do not allow. In this way also, Paul's approach to design and production is an example of the advantages that come with tailoring the means precisely to a desired end. In this case, the connection between the making and the product was Paul's accumulated tacit knowledge. Obscuring the making or design process by abstracting and automating it might enable more efficient production, but this would not satisfy Paul or his customers. According to Paul, when the development of a valued product for his customer is so dependent on his skills and expertise, it results in feelings of personal fulfillment and ensures the highest quality in production.

Paul also interacts with customers, who often provide feedback on what worked and what did not, which helps him further refine his designs for future production. Over his years as a designer, he has acquired an intimate understanding of how these two modalities (design and machinery) work together, which is hard to develop, according to Paul, if one learns to design only on a computer.

PERSONAL FULFILLMENT

As Paul shared blueprints and photographs of his completed devices, I got some understanding of the depth of the personal fulfillment that he felt from creating something that was well-designed and useful to his customers while adhering to his religious beliefs. Although Paul is an extraordinarily humble man, I could see that he also felt happy when he solved customers' problems, and he was content knowing that he conducted his business according to Amish values. For example, he was particularly fond of a motorized scooter that he had made for a wheelchair-bound friend. He showed me photos (figures 5.8 and 5.9) of the scooter, which allowed the user to roll a wheelchair up and down a ramp onto and off the scooter. Thus the scooter could be operated and steered while the user was comfortably seated in the wheelchair. Paul was particularly satisfied with this device because it was useful and helpful for people who experienced isolation and immobility due to health problems. By adhering to more traditional production methods that were in agreement with church rules, Paul came to embody a lifelong archive of practical design and mechanical knowledge. This made him a valuable resource in his community.

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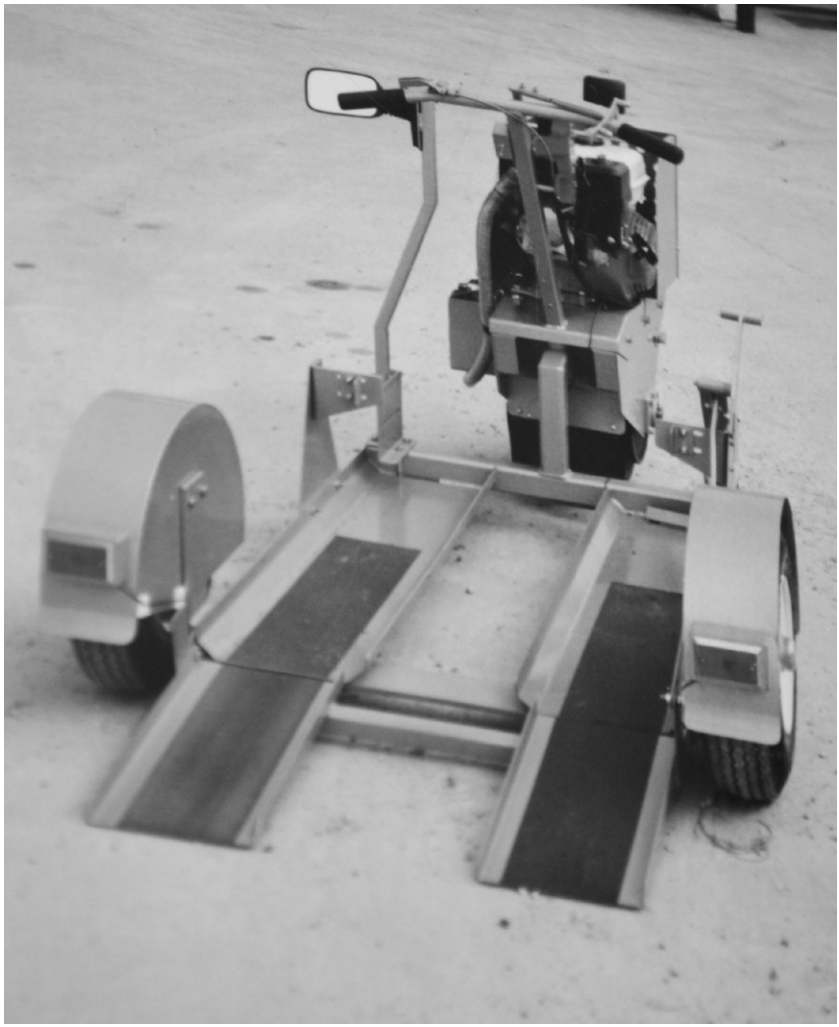

Figure 5.8
A hand-designed and hand-constructed motorized scooter for a wheelchair-bound friend. The ramp in the back is down so the user can load a wheelchair onto the scooter.

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Figure 5.9
Scooter photographed from the front.

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THE AMISH MAKER: A PROFESSIONAL IDEAL

After my interview with Paul, I realized during a conversation with Noah that Paul's business was held in especially high esteem among members of the local Amish community. It seemed to illustrate the sort of success that Amish businesses are called to strive for: its workers adhered to traditional Amish rules of design and production; Paul inherited the trade from his father and continued to use the methods of production that he had learned from him; Paul's business generated income by creating useful, high-quality, custom-made products; the enterprise was locally focused; and, despite its adherence to Amish tradition, it adapted over the years to make electric and computerized devices (in addition to other nonelectric devices) according to local demand. Additionally, Paul's ingenuity, creativity, and skill were highly regarded among his peers and fellow community members. Though he worked within certain limitations, he still built and created sophisticated, custom devices that served practical purposes. In this way, Paul's ability to succeed made him the embodiment of an ideal Amish professional, especially given drastic the economic changes taking place in his community.

Being able to see his work and understand the forces that constrained and afforded its development opened my eyes to the socially constructed nature of work practices in a new way. Although to an outsider, Paul's work practices may have seemed antiquated, within Paul's community he was highly revered. He was respected not because of the amount of money that he made (though it seemed that they were doing quite well), but because he had inherited the trade from his father and he was uniquely skilled, inspired by his family, hard-working, and in abidance with his church's rules. It is within this context that Paul is particularly representative of a spirit of Amish creativity and innovation. Although other businesses in the area were quickly assimilating non-Amish modes of operation by building larger production facilities, adopting electricity, using digital technologies, and working closely with outsiders, Paul's ingenuity and dedication to Amish values clearly elevated him in the minds of others in his community.

A SURVEY OF AMISH SOCIOTECHNICAL ARRANGEMENTS AND ARTIFACTS

Although Paul embodied an ideal spirit of Amish innovation, I also observed a number of other, perhaps less ideal, types of innovation among

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entrepreneurs. In most cases, like Paul, the innovator operated in a context where religious and cultural beliefs both afforded and constrained work practices and technology adoption. Unlike Paul, however, a number of innovators chose to perform practices and adopt technologies that may not have been widely (or sometimes locally) acceptable according to church rules. In these cases, Amish makers used technologies with varying degrees of visibility. According to some participants, the use of an unacceptable technology, although generally undesirable, was sometimes necessary. Using an unacceptable technology inconspicuously, according to some, signaled the business owner's deference to the Amish community and its values. In other cases, the new adoption of a particularly Amish innovation or sociotechnical arrangement was publicly acceptable. In these cases, the adoption of Amish workarounds also acted as a symbol of Amish identity and deference to church values. In both these cases, according to participants, the adoption of technology should be done in a way that prevents the free flow of unwanted information into Amish communities. In this way, unique Amish workarounds facilitated the working of new technologies and social arrangements for Amish purposes but limited their possible contamination of Amish culture, social structures, and spirituality. In the following pages, I will present examples of Amish technology adoption as everyday instances of critical making that perform these functions. First, various observations of sociotechnical arrangements will illustrate an intended precariousness or friction associated with adopting new technologies in such circumstances. Second, a number of widely adopted technological artifacts observed in the field and advertised in *TPCBE* will be presented. All the workarounds presented here are uniquely Amish and represent functional and political solutions for protecting Amish cultural autonomy in today's high-tech information society.

SOCIOTECHNICAL ARRANGEMENTS: PRECARITY AS A SYMBOL OF AMISH IDENTITY

According to Noah, whether or not you use a technology is less important than *how* you use it. During one of our many phone conversations, he told me a story about his father, who had recently passed away. Noah greatly respected and admired him. Twenty years ago, when Noah was still involved in farming, he put a gasoline engine on a corn picker. At that time, this was not an approved technology, because corn picking was to be done

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the slow way, in which horse and human energy powered the picking process. Noah was the first in the area to do this. That year, he picked his own corn and that of his brother-in-law. They both got in trouble, he said; however, "the next year, everyone had an engine hooked to their corn picker." As Noah explained this, he said he came by the innovation characteristic naturally. He asked his dad why he had never put an engine on his corn picker. His dad said, "Oh, I did that too—only once though. Everyone else was husking corn by hand." For his time, Noah said, his dad was also very progressive. Noah's story about attaching a gasoline engine to his corn picker reflects a designed *precarity* embedded in many Amish sociotechnical arrangements. Had Noah not been Amish, he would have likely gone to a farm implement dealer and bought a combine to harvest his corn more efficiently. By simply attaching a common gasoline engine to a manual corn picker, Noah created a unique assemblage that could be taken apart if and when the bishop came to reprimand him for using an unapproved device. The gasoline-powered corn picker was purposefully modular and limited in its function.

Chuckling as he told this story, Noah wondered why he always ended up being the "horse's rear end" who came up with such boundary-pushing innovations. In his construction company, which is only about eight years old, Noah realized early on that he and his co-owners needed computerization to manage an intense growth in their business. At one point he and his co-owners realized that they had been underpricing goods, which resulted in a $200,000 loss. He did not have a digital organization or inventory system in place, and, as their business grew, they could not keep up with what their inventory was worth. This, he said, "bit really hard." They went through a couple of different solutions until settling on one that worked. First they brought someone in house to implement a computerized inventory system using an internet-disabled computer and point-of-sale software so that inventory counts would be up to date. This would allow the business owners to know exactly what they sold. Although he believed that this was the right solution for his business, he and his co-owners were not sure that it was the best ethical or religious choice.

When he came up with the idea to implement a computerized point-of-sale system, he suggested it to his fellow owners, not knowing how they would react. He was the oldest among them and wanted to act when he discovered the $200,000 loss. The others, to his surprise, were relieved when

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he brought it up. They agreed to incorporate the new system right away. On the day that Noah was telling me this, he received a phone call from a fellow co-owner asking what he thought about bringing on a non-Amish co-owner. If they made this person a "majority owner" then they could have a more high-tech business operation, he said. This person could also contribute a level of tech savvy that was sorely needed among the current owners to help implement the new computerized system. Noah was in support of it. Although he realized that it was a difficult choice, he wanted the business to do well and felt relieved that someone had suggested this possible solution. Eventually, this solution fell through, though.

Noah and his colleagues later came up with another solution to introduce computerization and broadband connectivity to help them manage their growing business. Being a minister, he realized that he could not take the lead in such an initiative, because ministers are expected to set a good example for others. One of his business partners, Dan, was not a minister and agreed to lead the charge. Soon thereafter they began buying computers and software for the business. Noah expected to experience pushback from someone. Indeed, Dan's father, a bishop, also worked at the company. Noah and Dan did not expect that the pushback would come from Dan's father, however. When it did, they were shocked that "he put the brakes on it." Dan's father came to them and said, "You know, we can't keep going like this." According to Noah, "It hit Dan and I like a ton of bricks."

To resolve this predicament, the men came up with a solution. All the computers and software that they had bought and used were simply *given* to one of their external vendors. Despite the fact that these devices were given away, they remained physically on the desks of the employees at the company for their everyday use. According to Noah, "They made a handshake deal." There is no official contract, but the vendor, who has a Mennonite background, is the official owner of the system, Noah said. This man could come in at any time and claim the whole system as his own. Noah does not see this as a possibility, though, because the vendor has a vested interest in the company doing well, and to do well the system needs to be in place. (See figure 5.10 for images of the computers in Noah's business.) This is another example of designed sociotechnical precarity that increases dependence on a trusted friend to improve business, yet resist some of the negative aspects of adopting digital infrastructures. In this case Noah and his colleagues gave up their right of ownership of the technology and infrastructures to show

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Figure 5.10
One of Noah's coworkers has two monitors connected to his computer. He uses computer-aided design software on the left and email on the right. These devices were purchased by Noah's company and are used daily by Noah's coworker, yet they belong to an external vendor.

deference to Amish authorities and allow for their business to improve its financial stability.

Noah explained to me that this solution had a precedent in Amish ways of adopting new technologies that were seen as essential business tools in today's economy. It follows the arrangement for car ownership and use in Amish communities. Cars cannot be owned or driven by Amish people, but they can be used by Amish people. In rare cases, he said, this model has even been extended to allow Amish businesses to *lease* vehicles for use as work tools so long as a non-Amish person drives them. If cars are rented or leased from a non-Amish person and driven by a non-Amish person, they could be used for work by Amish people, he said. This was the same model that allowed his company to use computers that technically belonged to someone else. Noah acknowledged that this arrangement was a little cumbersome and perhaps even a bit silly. He knew that he needed the technology

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Figure 5.11
Wireless broadband antenna atop a silo on an Amish farm. (Note: the Wi-Fi symbol was added to the photo with graphic design software.)

for his business to continue to succeed, but he told me that he felt guilty about having and using the technology. I asked him if perhaps the unique arrangements were intended to do exactly that—remind him of his values on a daily basis. Because he felt guilty, maybe he was more likely to use the technology in limited ways that adhered to his religious values. He agreed that this was indeed a possibility.

Noah's computers connect to the internet through a wireless broadband signal distributed through an antenna on a nearby silo. He pointed to it through a window while we were talking (figure 5.11). The silo sits on an Amish farm. I was curious about this arrangement. When I got home from my field visit, I Googled "wireless broadband" in the county where Noah's business is located and found a company called Rural Wireless[1] that installs broadcast towers for internet signals on tall towers and silos throughout Noah's county. On the company's website it asks,

> Want [wireless internet] on your tower or silo? It's impossible for our engineers to find every good location to broadcast our Internet services. Even though we are searching every day for new broadcast locations we might miss a few. Don't

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> hesitate to give us a call if you own a tower over 80 ft tall or have a silo on your property.

This wireless internet signal is received via an antenna at the customer's residence or business. In theory, it is possible for many Amish folks in the county to connect to this wireless broadband infrastructure. If they subscribe to the service, they could have Wi-Fi in their home or business and access the internet via a mobile device or computer. To say I was surprised by this easy access is an understatement. First, I was surprised that an Amish farmer would agree to the installation of a Wi-Fi antenna on his property. Second, I was surprised at the relative ease and invisibility of the adoption of broadband among the Amish, given such an arrangement. Certainly Rural Wireless would also have non-Amish subscribers who live in this area, but much of the area is populated by Amish, and many of them have silos on which an antenna could be installed. Certainly Noah and his coworkers are not the only Amish adopters of this service in the area. What perhaps surprised me most about this is the visibility of the antenna—it is available for all to see. The fact that Noah's business subscribed to the service, however, was not visible to anyone except the employees of the company.

It is likely that I learned about the sociotechnical arrangement of computer ownership and internet use in Noah's business only because of the strength of my relationship with Noah. Others were not likely to be so forthcoming in conversations with outsiders who wanted to publish their responses to controversial questions. In fact, when entering Noah's business, computers were not in sight. The retail portion of the business appeared to abide by Amish conventions, although it was hooked up to the power grid, which was visible in the adoption of electric lights. When I visited Noah at work, he took me to a separate part of the building to meet and chat with his colleagues. They had desks with computers and monitors in offices out of the sight of public visitors. I observed many similar examples in which participants who thought that they needed computers and had them on their property used them out of public sight. In other cases, Amish participants used publicly available internet-enabled computers, such as those at public libraries. If Amish individuals did own and use computers at work or in the home, they typically did so out of the view of others as a show of respect for Amish tradition (or fear of discovery). Using internet-enabled computers in public places such as the library or the school (for

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Amish youth who attended non-Amish schools) was generally considered socially acceptable among the business and church leaders with whom I talked. Using internet-enabled mobile devices or computers in an Amish business or home was not, however. In other cases, Amish business owners had employees or relatives who were not Amish who made use of computers, software, and the internet for them. These arrangements, although not ideal (which would be no use of this technology at all), were generally acceptable according to church rules, because they mirrored already approved arrangements that allowed people to make use of automobiles.

In many cases in which Amish business owners needed to communicate with networked, outside vendors, they created workarounds with approved technologies that allowed them to communicate without using email or the internet. For example, Amos, a twenty-eight-year-old hardware store and machine shop owner, did not use the internet or computers in his business. This presented problems for him because his suppliers no longer printed catalogs. As a result, he could not look up parts numbers for his repair business. Therefore he used his fax machine, which was allowed by church rules, to get information about new parts and products and to place orders. In addition, he used an old catalog to find part numbers for older parts and products. In this way, because Amos did not use the internet to order parts, he cobbled together a precarious solution that enabled him to accomplish a specific goal. His solution was limited and controlled; it allowed him to utilize global information infrastructures in ways that benefited his business but would not open unrestrained channels over which unwanted information could flow into his mind or be accessed by other members of his family. (This business, like many Amish businesses, was on the same property as his family's home.)

One day I walked into a business that Noah had mentioned to me a few times. He suggested that I might be interested in interviewing someone who works there. I had the address and knew the name of the business, but the outside was unmarked and completely unassuming. In fact, I could barely figure out where the front door was. I had not called ahead or scheduled time to meet with anyone there. When I arrived, I explained to Ben, the thirty-one-year-old office manager, who I was and asked if he had time to answer a few questions. He welcomed me into his office, which was illuminated by electric lights, where he sat at a desk in front of a computer with an Excel spreadsheet and his email account open. Ben told me that he

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is one of sixteen full-time employees working for his cousin, who owns the business, which coordinates auctions where machine parts are sold. When the company started, their business was conducted entirely offline. The owner began his company by scavenging through manufacturing facilities across the Midwest after the operations had been moved out. According to Ben, in many such facilities, operations had been moved to Mexico or another place where labor costs were cheaper. In their wake, however, a lot of machines and equipment had been left behind. Ben's cousin picks up the leftover equipment and machines. He parcels them out and auctions them off. At the time of our chat, the business was largely run online and did approximately $2 million in sales each year. The people who work there list items on an auction website. In 2013, Ben said, they listed 11,000 items online. That number was expected to grow to 22,000 in 2014 and expand by a similar factor in 2015.

I realized that this was a highly unusual business venture for Amish owners. I asked Ben if the church had ever pushed back against what they were doing. He said, yes, at one point the church did push back against their move from offline to online auctions. In response, the owner brought on two non-Amish owner-investors. According to Ben, they are assets to the company because they are "good numbers guys." The owner and employees meet with the non-Amish owner-investors approximately once a month to set goals and work together to meet them. They are not, however, involved in everyday processes. "They are more involved paper-wise and are strategic leaders," Ben said. The owner is an expert in the auction business, having run it offline before going online, so he is more involved in the day-to-day processes. The team is pretty well balanced and works well together, according to Ben. The online operation helped the business to greatly expand, he said. When the owner divvied up his portion of the company and shared it with non-Amish owners, he gained approval from the church to conduct his auction business online. This is yet another example of designed sociotechnical precarity aimed at protecting Amish professional traditions and religious practices while modifying business practices that bring needed economic resources into the community.

Robert, a more conservative businessman, took a different approach. Robert had a tourism-oriented retail business and thought that it was beneficial for him to advertise to attract customers. To "stay away from tech as much as possible," he used outside vendors to do his advertising for him.

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In particular, he hired a print shop that produces advertising materials such as fliers and catalogs. It also produces books, directories, and a popular local magazine geared to Amish readers containing information about local events. The print shop also sends out Robert's emails for him. I interviewed the owner of the print shop and one of his colleagues, who explained that they were quickly entering the business of using digital technologies for their Amish customers. Robert is far from the only customer on whose behalf the company sends emails. This allows business owners like Robert to make use of computers, email, and the internet without personal ownership or engagement. Robert also utilizes the county's visitor and convention center bureau for web advertising. Robert told me that he feels pressure to use the web because his customers frequently ask where they can go to buy his products online. By paying others to use advertising technologies, he designs a sociotechnical workaround that enables him to abide by his religious and cultural values while acquiring the resources that he needs for financial survival. In addition, he develops and maintains a mutual dependence on local external vendors whom he trusts. In this way, Amish innovation introduces friction or precarity into sociotechnical arrangements. For them, this serves as an acceptable workaround, and it acts to strengthen local social networks and systems of economic support.

In my interview with the non-Amish owner (his parents are ex-Amish) of the print shop that publishes the *People's Exchange* and his colleague, I learned a great deal about the various services that they offered to Amish businesses. Many services helped them advertise their products and made the internet accessible without the clients' having to own the devices or use them firsthand. For example, many of the *People's Exchange's* clients are wholesale furniture manufacturers who sell their products to furniture retail stores across the country. The *People's Exchange* produces catalogs for furniture makers to give to retailers so they know what they produce. The retailers often ask wholesalers for a PDF (portable document format) version of the catalog and put it online, where it is linked to the retail store's website. In the *People's Exchange's* discussions with some of their clients, they have suggested helping the business owner put the PDF online themselves. Then they could provide the retailer with a secure login so the catalog is not open to the public. The *People's Exchange's* owner thought that this was a necessary baby step toward full adoption of the internet by Amish businesses in his community.

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I asked if he believed that it was inevitable that Amish businesses would start moving some of their operations online. He replied, "Yeah. It's happening now." He described a variety of precarious sociotechnical arrangements involved in the services that he and his colleagues provided, such as sending out "email blasts" for clients. For example, one furniture maker had a trade show coming up and wanted to send an electronic message to all the dealers who would be at the show (his primary customer base). The printing company owner said,

> We used Mail Chimp and sent an email blast . . . to all the dealers that are part of that show. This was a personal invitation from [the business owner] as one of the builders who was going to be there—saying come see us while you're [at the show] and come see our new line of furniture. So, yeah, it's happening. But it's still not everybody.

In numerous ways, the print shop acted as an intermediary or buffer between the Amish and the outside world. It provided (and charged for) many services that enabled its Amish customers to utilize digital technologies without having to own them or use them themselves. He told me that his business does well catering to the Amish businesses in the area partly because he has one hundred Amish cousins who are business owners, and he can ask them about what services are needed and which ones the community might not quite be ready for. Because of his background, the print shop's owner is seen as a trusted vendor and colleague among Amish business owners in the settlement. His pseudoinsider status is an advantage for him in attracting the patronage of Amish business owners and makes him an ideal candidate for mediating the internet and email use of his Amish customers.

The *People's Exchange*'s owner was considering a number of different services that he could provide to facilitate the Amish use of the internet through his company. For example, he wanted to provide a room in his office, which is located in the Amish settlement, for people to come in and use computers. He would then charge individual users for the time that they spent on the computer, much like at an internet café. Because many companies have been forced to buy supplies online, he thought that this would allow them to buy their supplies without owning a computer or paying for an internet connection. Currently, the *People's Exchange* will order parts online for its clients, if suppliers demand this mode of purchase.

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This is a service for which the company charges its customers. According to the print shop owner, one client has an engine repair shop, and his dealers require him to order parts online. He used to be able to write out the order and fax it in. His dealers will not allow that anymore. So now he writes out an order and faxes it to the print shop, which places the online order. The print shop then charges the client a nominal fee.

In another example, the print shop takes the paper catalogs that it produces for clients and makes them available online to individual customers (instead of just retailers). According to the *People's Exchange's* owner, when they produce a client's catalog, they want to make sure that they have versions of the company's photographs that also work on customers' computers and mobile screens. The lower-resolution images are then used in the online PDF of the catalog. He said,

> We did that for [a client] . . . and when we showed it [to him] we could show him exactly who opened it and who didn't—and he was like "Oh, wow that's cool!" And, in fact, we're using him as an [example]. . . . We're going to set up a sample furniture website to show some of the others. And we are going to ask him if we can use his furniture to do that, and he was all excited. I have a feeling he will end up with a website because . . . at least that's sort of our plan.

The owner's colleague added, "And if he does, that would be our first Amish website." According to the print shop owner and his colleague, there are Amish businesses in the area that have websites. One of them is even owned by a bishop, they said. When I asked about this, the owner said, "Well, he has a son that's not Amish. . . . A lot of times the way to get around those prohibitions of technology is to get a partner who is not Amish and then it's okay."

To further indicate the amount of change that has occurred in the area regarding the adoption of digital technologies among the Amish, the owner recalled an experience he had twenty years ago, when many Amish businesses were extremely averse to having anything to do with the internet. At that time he was part of the local area merchants' association. He remembered that the association was assembling its annual brochure and decided to put it online. A number of the Amish businesses involved in the merchants' association were upset by this and pulled out of it. One of those, he said, was the bishop who now has his own website. Reflecting on this, the print shop owner said, "So, in just twenty or twenty-two years he

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went from 'Oh nope, I'm not even going to be a member if you do that'—and they were just listing the businesses—to today, where he has his own website for his business."

Going forward, the owner believes that the competition in his own industry will be heating up as Amish businesses start venturing into online commerce. Among his competitors in the region, he said, "We've all kind of agreed that we won't go after the other [vendors'] customers. If they're unhappy, they'll come to us kind of a thing." Recently, however, a new player came on the scene, and

> . . . [They] are out there hitting all of our customers trying to get them to do websites. We found out about that and we got a bit more aggressive on it. We called up all of our customers and said, "We're not saying you have to do a website, but if you do, we do websites! We'd be happy to talk to you. You don't need to go with them."

Another service that the *People's Exchange* provides is to broadcast the local high school's basketball games on the web. According to the owner, more and more Amish young people on Rumspringa have smartphones. When he was at a trade show not too long ago,

> [An Amish] kid came up and said, "I used to be able to get [the broadcast of the basketball game]. Why is it not working?" He wanted me to show him how to use his smartphone so he could listen to us. . . . During that age, though, it's ok. Anything goes pretty much. Maybe even a little too much sometimes.

In this way, Amish young people are given a pass (in some cases) to own and use digital technologies until they decide to become baptized members of the church. When they officially become members of the church, they are supposed to give up the devices and abide by the church's rules. Some informants mentioned that parents actually benefited from having a son or daughter who was not yet a member of the church, because they were able to use their mobile phones or have their son or daughter email or go online for the family business.

The day I visited the *People's Exchange*, they had just hired their first Amish employee. The owner told me that he had visited another similar print shop in an Amish settlement in a different state to see how they did things there. When his guide led him through the design department, "it just floored me!," he said. "They had all these Macs sitting around and all

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these Amish girls sitting there working on them doing design work." The owner said that the other business owner preferred for these workers to come in with no experience and no training because he could train them the way he wanted them trained. "So, we thought we'd give that a try." Their new employee is a fifteen-year-old who has completed eight years of schooling. They hired her because they thought that she was very smart but did not have much experience with computers. To start, they wanted to train her to be able to make small changes in the ads in their flagship publication—a black and white advertising magazine serving the Amish communities. This publication comes out every two weeks. Eventually, they may ask her to design the layout and the run sheet. They are starting from scratch with her, however. "She's never used InDesign," the owner said. The other thing that constrains her professional potential is her anticipated fulfillment of Amish gender roles. "She may not quit right as soon as she gets married, but when the first kid comes along, she'll be gone. So we've gone into it knowing she may only be here for four or five years. But maybe that's okay," the owner said.

In my conversation with the print shop owner and his colleague, I learned that the economic downturn of 2008 to 2010 had a real impact on the local economy. Many of the RV manufacturers, the largest employers in the area, were laying off workers left and right. I asked if this was bad for the *People's Exchange*'s business, too. They said, "Actually, it sparked new sources of revenue for us. Many of the Amish workers who were laid off from their work at the RV manufacturers started their own businesses. In order to acquire customers they began advertising with us." The number of mom-and-pop Amish businesses in the area increases all the time, and they are pushing into new areas, they said. In a rather surprising example, the owner knew of an Amish business where optometric services were being provided. At this business, a licensed (non-Amish) optometrist would come in twice a week to perform eye examinations for customers. The Amish owners did the bookkeeping and outsourced the purchase of the eyewear. They made a profit by marking up the eyewear and the optometry services. They did not make the glasses or the frames themselves. According to a print shop employee who patronized the shop, it was much cheaper than going to Walmart, where he usually went for optometry services. Such creative endeavors, according to the *People's Exchange's* owner and his colleague, are widespread among the Amish in their area and are only

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increasing as individuals develop their own professional enterprises instead of working as day laborers for large factory-style manufacturers. This type of work is preferred because it enables people to be creative and work at home with family members.

For an article in a manufacturers' catalog, the *People's Exchange's* owner once interviewed an Amishman who started making mattresses because he had been laid off. Although his interviewee had been making really good money at the factory, he always wanted to start a business that he could pass down to his kids. Working at the factory was too easy, however. The man would go to work at 4 o'clock in the morning and work eight hours. Then he would have the rest of the day to himself. Getting laid off forced him to start the family business. Today, the kids are basically running the business. The man went back to work in the factory as the economy picked up because the mattress business has not quite grown big enough for him to be engaged full time.

The print shop owner told me that he bought his printing business from an Amishman who, he thought, "was technologically ahead of the rest of us." Because he ran printing presses, he was forced to have electricity. He did not get his electricity from the public grid, however. Instead, he had solar panels and a wind turbine. He collected electricity in huge battery packs and used it to run his business, according to the owner. His presses were pneumatic. "He was ahead of the curve. He leap-frogged over us. And he's an Amishman. . . . The solar power and the wind—that's a big thing in the Amish community," the owner said.

AMISH ARTIFACTS: FUNCTIONAL SYMBOLS OF AMISH IDENTITY

In *TPCBE*, a number of unique technological artifacts are advertised for Amish business use. These devices are particularly noteworthy because they perform certain practical functions but also help identify their users as uniquely Amish. In an analysis of these artifacts, Amish values become visible in the design of devices not typically seen in non-Amish technologies. For example, inconvenience is considered a virtue, so Amish technologies may contain "speed bumps" on purpose to prevent users from using digital technologies to frivolously engage in undesirable behavior. Public communication instead of private communication is preferred so that members of the family or local community can hold each other accountable for their

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actions. Immobility instead of mobility is preferred, because it is seen to keep members of the family physically together instead of making it possible for them to communicate (less meaningfully) from afar. Similarly, the collective instead of individual ownership of devices is seen to encourage public, visible communications so that people can hold each other accountable for their actions and reinforce strong-tie social networks of support. Similarly, the ability to communicate emotion via face-to-face modalities is preferred over technologically mediated modalities because it is seen as better for the maintenance of strong, local social network ties. The devices that appear in *TPCBE*, because of the publication's widespread circulation among Amish entrepreneurs, shape Amish imaginations and help establish standards about what technologies are acceptable for adoption.

PCFREEMAIL

In the course of my fieldwork I met business owners like Daniel, a furniture maker, who had begun using a service called PcFreeMail because it was regularly advertised in *TPCBE*. Over the years, his business contacts (primarily non-Amish individuals) moved all their ordering functions online, but Daniel did not use the internet or email. PcFreeMail was a solution that helped him communicate with his dealers and other business contacts. It is a unique service popular among the Amish that allows users to exchange emails via fax machine or word processor. According to a recurring full-page advertisement in *TPCBE*, PcFreeMail "is an affordable service that allows you to use your existing fax machine or word processor to send and receive email without the need for a computer or internet connection." It helps businesses "thrive in the computer age where email is becoming a necessary means of communication," according to the ad. The service is explained through images that show how a message, photograph, invoice, or quote for services can be sent from "their computer to your fax machine." The service receives the email, translates it into a fax, and then sends it to the recipient. When a nonemailing end user receives a message, it is automatically printed by his or her fax machine. Each nonemailing user has his or her own email address so that others can send them "emails" using PcFreeMail. One can also send messages through the service to others' email addresses. To send a handwritten or typed message through the service, one simply writes the recipient's email address at the top of the first page and then faxes the message to a dedicated access number. The

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PcFreeMail system "instantly converts and sends your message in a professionally presented email" (figure 5.12).

Daniel also does ninety percent of his business with furniture dealers and retailers. To receive high-resolution images of their orders and blueprints, he designed an ad hoc workaround to solve a problem that he encountered with PcFreeMail: he could not receive high-resolution files using the service. To do this, he installed a printer in his office that was networked to his dealers' computers. Therefore, when a dealer wanted to send an order, the dealer would simply print the order to Daniel's printer, which physically sat in his office.

In adopting PcFreeMail, Amish business owners such as Daniel adopt a new service to maintain business functionality in today's ever-changing world. They do so in a unique fashion that limits their technology use, however, allowing it only for certain purposes. Having PcFreeMail instead of an open email connection limits communication in ways that encourage Daniel and his colleagues to adhere to Amish values and practices: there is no connection to the public electric grid (often fax machines and printers can be run off of generators, or solar or battery power); the unrestrained internet is not accessible to users; the content of an email is not private; and a computer is not required, though a telephone line is needed for facsimile transmission. Users can use the service to accomplish the necessary task of communicating with external vendors who no longer communicate via fax or the US postal service. By adopting this service, users are also showing deference to Amish professional convention and identity.

PLAIN COMPUTERS

In my fieldwork I also met people who were using devices that comprise a new and very popular genre of personal computers, colloquially called *plain computers*. The first plain computer, the "Classic Word Processor," was created by "horse and buggy" Mennonite Allen Hoover for use by fellow Anabaptists in 2005. As the early advertisement in figure 5.13 claims, it is "made specifically for the plain people by the plain people." According to a 2007 article in *Farm Show* magazine, Hoover runs a Pennsylvania business that retrofits woodworking tools for people who use alternative power sources, like the Amish. He came up with the idea for the plain computer when other companies stopped making word processors in the late 1990s. "Many plain people accept word processors," Hoover said. "Computers

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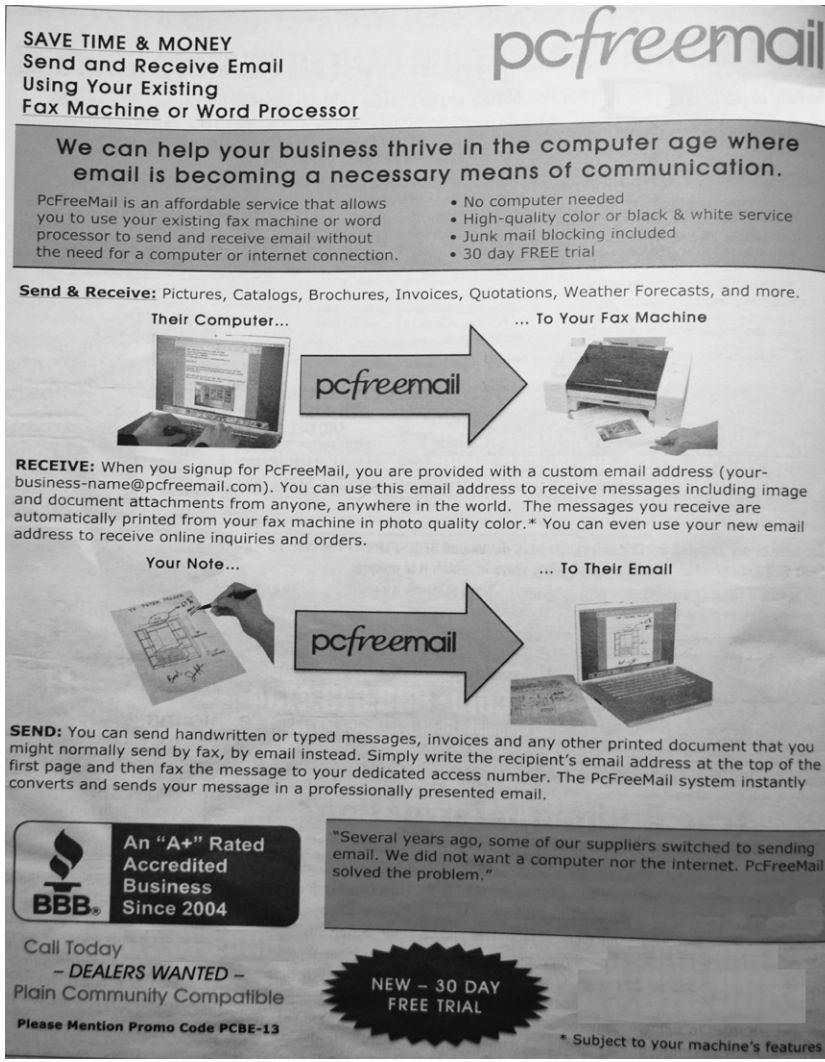
SAVE TIME & MONEY
Send and Receive Email
Using Your Existing
Fax Machine or Word Processor
pcfreemail
We can help your business thrive in the computer age where email is becoming a necessary means of communication.
PcFreeMail is an affordable service that allows you to use your existing fax machine or word processor to send and receive email without the need for a computer or internet connection.
• No computer needed
• High-quality color or black & white service
• Junk mail blocking included
• 30 day FREE trial
Send & Receive: Pictures, Catalogs, Brochures, Invoices, Quotations, Weather Forecasts, and more.
Their Computer...
pcfreemail
... To Your Fax Machine
RECEIVE: When you signup for PcFreeMail, you are provided with a custom email address (your-business-name@pcfreemail.com). You can use this email address to receive messages including image and document attachments from anyone, anywhere in the world. The messages you receive are automatically printed from your fax machine in photo quality color.* You can even use your new email address to receive online inquiries and orders.
Your Note...
pcfreemail
... To Their Email
SEND: You can send handwritten or typed messages, invoices and any other printed document that you might normally send by fax, by email instead. Simply write the recipient's email address at the top of the first page and then fax the message to your dedicated access number. The PcFreeMail system instantly converts and sends your message in a professionally presented email.
BBB
An "A+" Rated Accredited Business Since 2004
"Several years ago, some of our suppliers switched to sending email. We did not want a computer nor the internet. PcFreeMail solved the problem."
Call Today
– DEALERS WANTED –
Plain Community Compatible
Please Mention Promo Code PCBE-13
NEW – 30 DAY FREE TRIAL
* Subject to your machine's features

Figure 5.12
A 2014 advertisement for PcFreeMail computerless email service. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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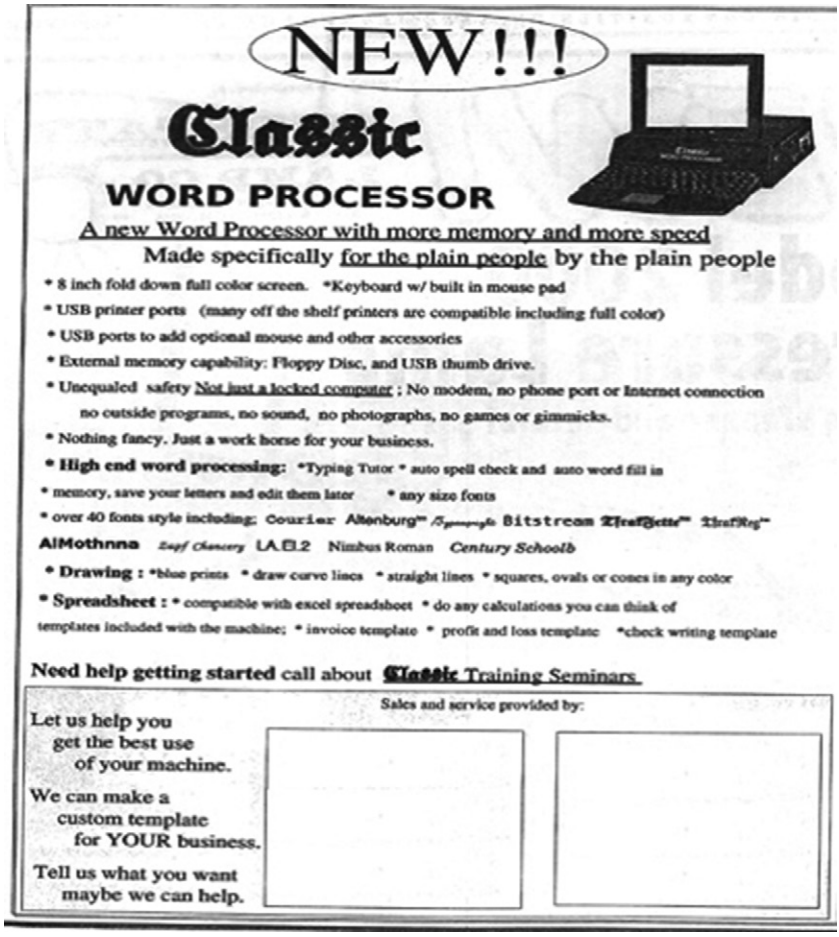
NEW!!!
Classic
WORD PROCESSOR
A new Word Processor with more memory and more speed
Made specifically for the plain people by the plain people
* 8 inch fold down full color screen. *Keyboard w/ built in mouse pad
* USB printer ports (many off the shelf printers are compatible including full color)
* USB ports to add optional mouse and other accessories
* External memory capability: Floppy Disc, and USB thumb drive.
* Unequaled safety Not just a locked computer ; No modem, no phone port or Internet connection
no outside programs, no sound, no photographs, no games or gimmicks.
* Nothing fancy. Just a work horse for your business.
* High end word processing: *Typing Tutor * auto spell check and auto word fill in
* memory, save your letters and edit them later * any size fonts
* over 40 fonts style including: Courier Altenburg Bitstream
AlMothnna LA.B.2 Nimbus Roman Century Schoolb
* Drawing : *blue prints * draw curve lines * straight lines * squares, ovals or cones in any color
* Spreadsheet : * compatible with excel spreadsheet * do any calculations you can think of
templates included with the machine; * invoice template * profit and loss template *check writing template
Need help getting started call about Classic Training Seminars
Let us help you get the best use of your machine.
We can make a custom template for YOUR business.
Tell us what you want maybe we can help.
Sales and service provided by:

Figure 5.13
A 2007 advertisement in *Farm Show* magazine for the Classic Word Processor.

aren't acceptable because of their connectivity to the world through the internet, and their ability to add programs and store photographs," the article continues. When Hoover designed the Classic Word Processor, he met with individuals from Amish church groups to see what was acceptable to them. He found out that they wanted the capability to make spreadsheets, do word processing, and construct simple drawings. "Spreadsheets is the part of it that drove the whole project," according to Hoover. "Amish business people use it for everything from inventory to tracking to creating

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receipts." Hoover also installed open-source programs on the machine and "locked it down" so that programs cannot be added after the purchase of the device. Working with computer programmers, Hoover adapted the open-source programs that he loaded onto the machines by removing features such as an address book, which connects to an email client (Word Processor Keeps Things Simple, 2007). Because programs cannot be added by users, Hoover installed 600 printer drivers on the machine to make sure that it would successfully connect to the user's printer, no matter the model. The Classic Word Processor is "ten times as fast and has one hundred times the memory of old word processors . . . and it functions similar to a five-year-old computer," according to Hoover. At an introductory price of $798, sales have been robust since the word got out, he said.

The Classic Word Processor is an important Amish creation that set the bar for later indigenous digital technology development in its unique ability to allow users to complete typical twenty-first-century work functions while omitting the objectionable functionalities that the Amish do not want. Plain computers such as the Classic allow an individual to write up, edit, and save documents in programs like Microsoft Office, including text-based documents, spreadsheets, and invoices, and many are also capable of drawing things electronically and printing. They appeal to Amish customers in that they have "no modem, no phone port or internet connection, no outside programs, no sound, no photographs, no games or gimmicks," according to the original Classic advertisement. "Nothing fancy. Just a work horse for your business."

A 2014 advertisement in *TPCBE* reflects a few changes to the technical specifications and the sociotechnical affordances listed in the device's description (figure 5.14). For example, in this newer device, an eight-inch display was replaced by a twelve-inch display, and a dual-core 3-gigahertz processor, 4 gigabytes of random access memory, and a 500-gigabyte hard drive have been added. In the new ad, the limitations on internet connection, sound, images, and so forth were removed. The new product description boasts an "unequaled 'power to cost' ratio" and a "recognizable non-computer appearance" as noteworthy and attractive characteristics. Additional purchasing information for the Classic Word Processor cannot be accessed via the web. Calling local dealers for more information is possible, however. For yet another recent ad for the Classic Word Processor, see figure 5.15.

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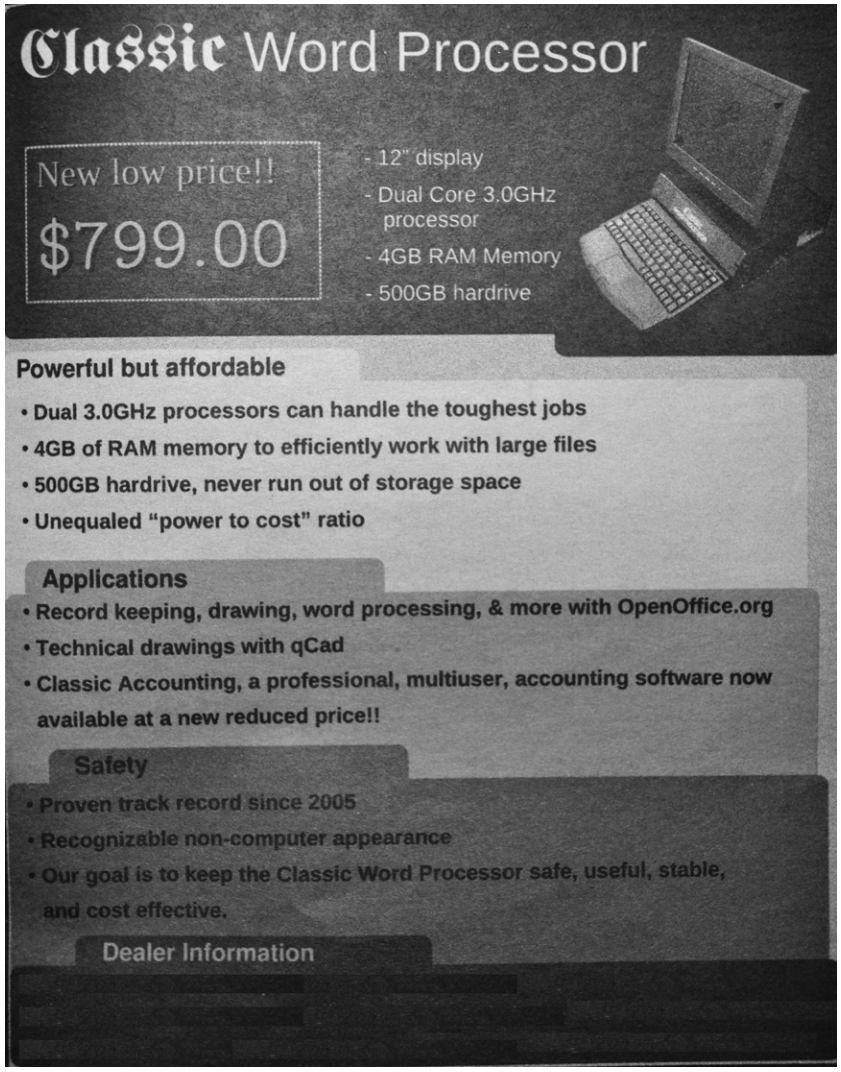
Classic Word Processor
New low price!!
$799.00
- 12" display
- Dual Core 3.0GHz processor
- 4GB RAM Memory
- 500GB hardrive
Powerful but affordable
• Dual 3.0GHz processors can handle the toughest jobs
• 4GB of RAM memory to efficiently work with large files
• 500GB hardrive, never run out of storage space
• Unequaled "power to cost" ratio
Applications
• Record keeping, drawing, word processing, & more with OpenOffice.org
• Technical drawings with qCad
• Classic Accounting, a professional, multiuser, accounting software now available at a new reduced price!!
Safety
• Proven track record since 2005
• Recognizable non-computer appearance
• Our goal is to keep the Classic Word Processor safe, useful, stable, and cost effective.
Dealer Information

Figure 5.14
A 2014 advertisement for the Classic Word Processor. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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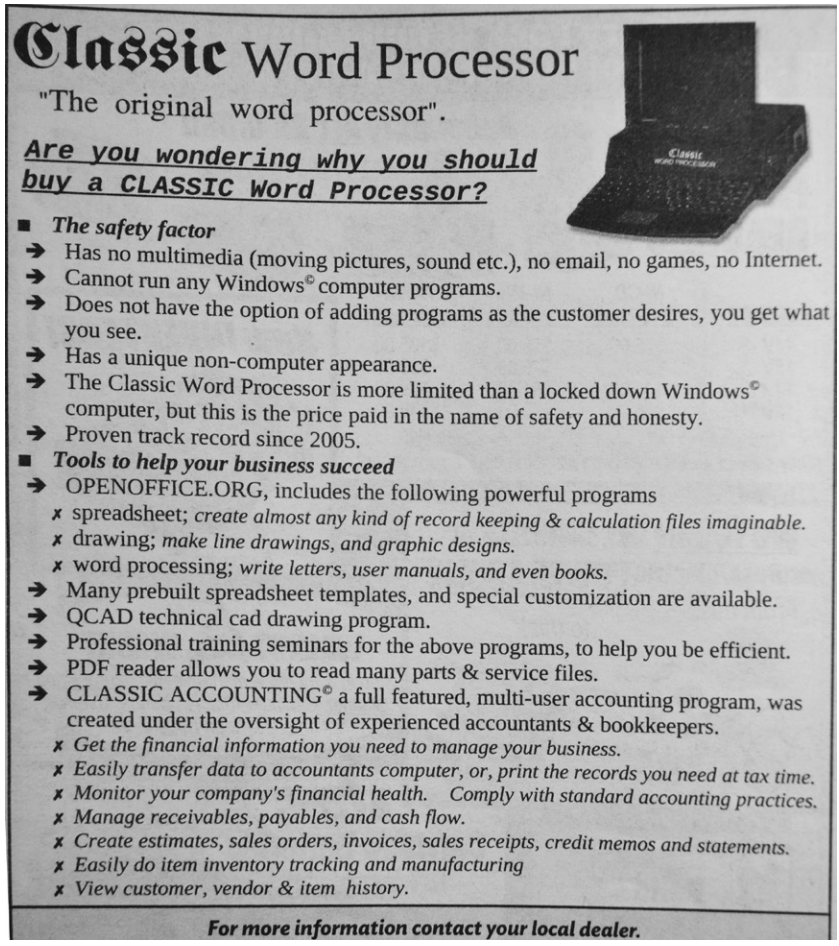
Classic Word Processor
"The original word processor".
Are you wondering why you should buy a CLASSIC Word Processor?
■ The safety factor
➔ Has no multimedia (moving pictures, sound etc.), no email, no games, no Internet.
➔ Cannot run any Windows© computer programs.
➔ Does not have the option of adding programs as the customer desires, you get what you see.
➔ Has a unique non-computer appearance.
➔ The Classic Word Processor is more limited than a locked down Windows© computer, but this is the price paid in the name of safety and honesty.
➔ Proven track record since 2005.
■ Tools to help your business succeed
➔ OPENOFFICE.ORG, includes the following powerful programs
✗ spreadsheet; create almost any kind of record keeping & calculation files imaginable.
✗ drawing; make line drawings, and graphic designs.
✗ word processing; write letters, user manuals, and even books.
➔ Many prebuilt spreadsheet templates, and special customization are available.
➔ QCAD technical cad drawing program.
➔ Professional training seminars for the above programs, to help you be efficient.
➔ PDF reader allows you to read many parts & service files.
➔ CLASSIC ACCOUNTING© a full featured, multi-user accounting program, was created under the oversight of experienced accountants & bookkeepers.
✗ Get the financial information you need to manage your business.
✗ Easily transfer data to accountants computer, or, print the records you need at tax time.
✗ Monitor your company's financial health. Comply with standard accounting practices.
✗ Manage receivables, payables, and cash flow.
✗ Create estimates, sales orders, invoices, sales receipts, credit memos and statements.
✗ Easily do item inventory tracking and manufacturing
✗ View customer, vendor & item history.
For more information contact your local dealer.

Figure 5.15
A 2014 advertisement for the Classic Word Processor. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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A wide variety of other plain computers have also been developed and appear regularly in current *TPCBE* advertisements (2014). Deskmate, for example, makes six different word processors (figure 5.16). Unlike the Classic, the Deskmate devices run Microsoft Windows and QuickBooks, offer local area networking capabilities, and have automatic backup functionality. One Deskmate device looks like a regular computer, one looks like a laptop, and one appears to be a tablet. The other three have recognizable noncomputer appearances (a generally desirable feature). These two manufacturers seem to appeal to different customers with varying ideological positions; the Classic is likely geared toward a more conservative Amish customer, and the Deskmate line is likely aimed at more religiously and politically progressive customers.

Other examples of plain computers appearing in the pages of *TPCBE* include the Plainbook, the Pleasant, the Pioneer, and the Guardian (figures 5.17–5.20).

The Pioneer and the Guardian offer a few additional features and are described as data processors rather than word processors. These two offer features that help protect and secure data and information, including a "custom welded and riveted aluminum case with keyswitch startup" on the Pioneer. In the advertisement in which the Guardian appears (of which figure 5.20 is just a portion), the company that sells the device reports that it offers "office tech and data services" broadly. The ad reads, "We are here to help you make the transition from paper to more efficient electronic accounting. [We have] special expertise in networking and security. Community businesses trust us for providing safe equipment and blocking productivity threats." Other artifacts in the plain computer genre appearing in *TPCBE* include a battery-powered typewriter and a device that performs computerless email (figures 5.21 and 5.22).

COMMUNITY CONFERENCE PHONE LINE

In addition to these devices, *TPCBE* also facilitates a free informational service made accessible via telephone called PCBE Free Information Line (figure 5.23). A live presentation and discussion is arranged monthly that allows business owners to learn about a specific business-related topic. Often the topic of the discussion centers on a recently published article in *TPCBE*. Previous discussion topics include marketing, creating better banking relationships, preventing business fraud, economic issues, legal issues, collecting

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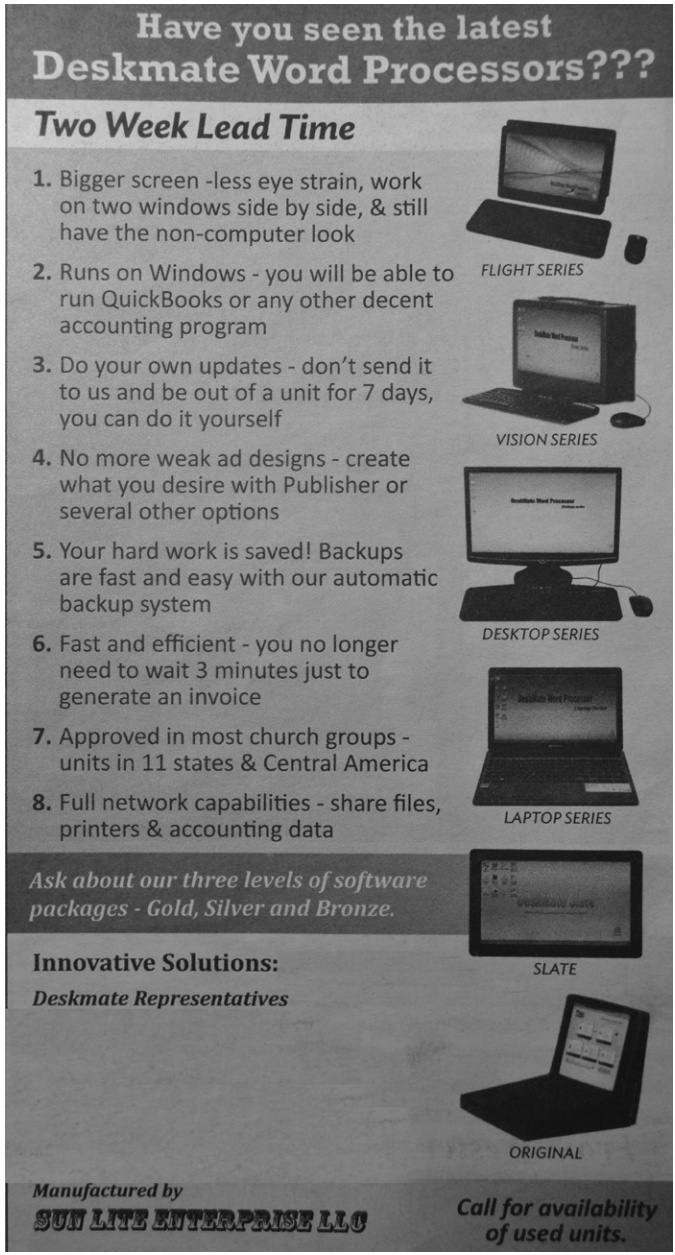
Have you seen the latest
Deskmate Word Processors???
Two Week Lead Time
1. Bigger screen -less eye strain, work on two windows side by side, & still have the non-computer look
2. Runs on Windows - you will be able to run QuickBooks or any other decent accounting program
3. Do your own updates - don't send it to us and be out of a unit for 7 days, you can do it yourself
4. No more weak ad designs - create what you desire with Publisher or several other options
5. Your hard work is saved! Backups are fast and easy with our automatic backup system
6. Fast and efficient - you no longer need to wait 3 minutes just to generate an invoice
7. Approved in most church groups - units in 11 states & Central America
8. Full network capabilities - share files, printers & accounting data
FLIGHT SERIES
VISION SERIES
DESKTOP SERIES
LAPTOP SERIES
SLATE
ORIGINAL
Ask about our three levels of software packages - Gold, Silver and Bronze.
Innovative Solutions:
Deskmate Representatives
Manufactured by
SUN LITE ENTERPRISE LLC
Call for availability of used units.

Figure 5.16
Advertisement from 2014 for Deskmate word processors. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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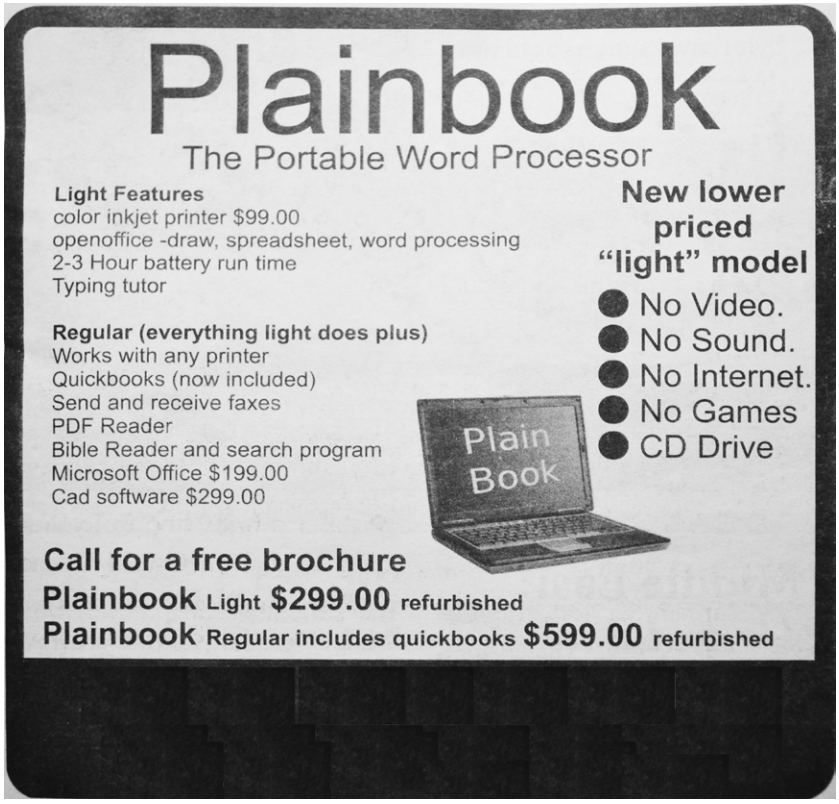

Figure 5.17
A 2014 advertisement for the Plainbook word processor. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

unpaid debt, workplace safety, applying biblical principles at work, and lean manufacturing techniques. Business owners access this service by telephone on a date and time printed on the Contents page of the monthly issue. Presentations and discussions are recorded and archived, making them accessible if readers or users missed or want to revisit a topic after the fact. They are accessible to anyone who calls the phone number in *TPCBE*. In the non-Amish world, business professionals seeking information for improving their business practices would likely go to the internet. In the absence of such resources, *TPCBE* itself publishes a number of articles and essays exploring such topics. To augment its written information, it also helps organize the PCBE Free Information Line to encourage more dynamic

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Figure 5.18
A 2014 advertisement for Pleasant word processor. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

and interactive forums for learning and business development among its readership.

PLAIN CELL PHONES

In addition to the plain computers advertised in *TPCBE*, two basic types of plain cell phones are advertised. The first type is specifically identified as "plain cell phones" by a telecommunications company targeting Amish customers, as indicated in the ad by a man wearing plain clothes and the horse and buggy in its logo. These phones are basic flip phones that have "no games, no camera, no internet, no text messaging" (figure 5.24). In the field, many participants told me that they bought their cell phones from such providers, often from companies in Pennsylvania, like the one in figure 5.24.

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Introducing the PIONEER Data Processor
The ultimate data processor in security, performance and value.
Limited Time Offer!!!
Order by 2/1/14 and get $50 off plus a 32GB flash drive FREE!
The all-new PIONEER Diamond
After a year of development and testing, the Pioneer is finally ready for the market. Simple to use and designed to fulfill the requirements of both beginners and expert users, the Diamond has a 17.3" display, 3.5GHz quad-core processor, 750GB hard drive and 6GB RAM. In addition to that it features a built-in CD drive, Li-Ion battery, SD card slot and USB 3.0 for super fast data transfer speeds. With its 10-15 second startup time, compact size, aluminum case, faxing and networking options and cordless keyboard and mouse, it is ideal for those that need a powerful, reliable and affordable system. Special sale price is only $1295.
The Pioneer has absolutely no sound, movie, game or Internet capabilities, and includes advanced security features surpassing all other systems available today. Pre-installed programs include OpenOffice 4.0, CAD designing, PDF viewer and editor, backup, accounting and more. Other approved programs also installed.
Coming in Spring 2014! The Pioneer Silver – smaller size with less power and memory for only $995. (Subject to change.)
Call, fax or write to Pioneer Electronics for more information:

Figure 5.19
A 2014 advertisement for Pioneer Diamond data processor. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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Figure 5.20
A 2014 image of the Guardian data processor from an advertisement in *TPCBE*.
Source: Reprinted with the consent of *Plain Communities Business Exchange*.

The second type of mobile phone appearing in *TPCBE* advertisements is the black-box phone that I discovered during my fieldwork. In *TPCBE* advertisements, all the components needed to cobble together a black-box phone are offered for sale by one vendor. These products include various models of landline phones that are compatible with the black boxes, the black boxes that connect the phones to the cell network, the batteries or solar panel and accessories that power the two, and bags for carrying them (figure 5.25). In the advertisement in figure 5.25, it is clear that the vendor is targeting Amish and conservative Anabaptist religious groups in the declaration (in Pennsylvania Dutch) that he or she speaks the Amish native dialect: "Ich kann Deutsch," or "I can speak German."[2]

The services, artifacts, and arrangements appearing in these advertisements act as objects that accomplish two simultaneous tasks for Amish adopters: they are tools that allow them to perform high-tech work functions in accordance with Amish values, and they symbolically identify the user as particularly Amish. It is important to note that the appearance of these objects in the pages of *TPCBE* identifies them as intended for

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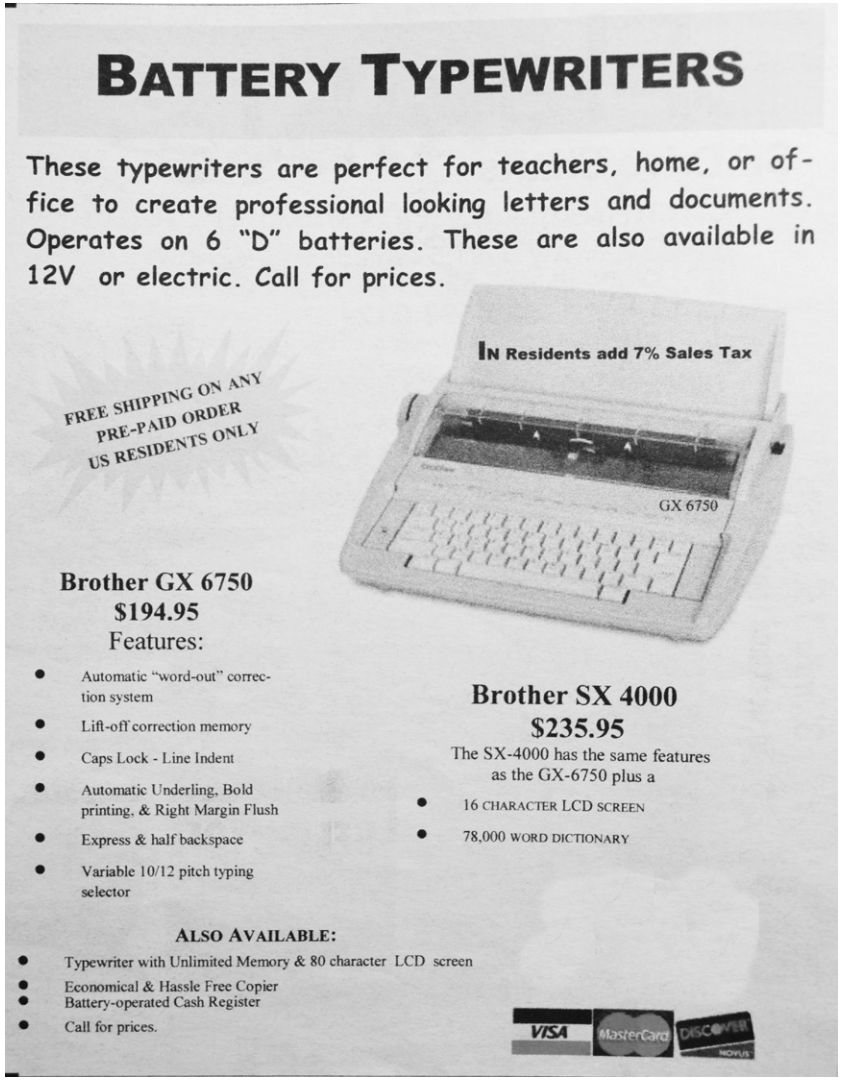
BATTERY TYPEWRITERS
These typewriters are perfect for teachers, home, or office to create professional looking letters and documents. Operates on 6 "D" batteries. These are also available in 12V or electric. Call for prices.
FREE SHIPPING ON ANY PRE-PAID ORDER US RESIDENTS ONLY
IN Residents add 7% Sales Tax
GX 6750
Brother GX 6750
$194.95
Features:
Automatic "word-out" correction system
Lift-off correction memory
Caps Lock - Line Indent
Automatic Underling, Bold printing, & Right Margin Flush
Express & half backspace
Variable 10/12 pitch typing selector
Brother SX 4000
$235.95
The SX-4000 has the same features as the GX-6750 plus a
16 CHARACTER LCD SCREEN
78,000 WORD DICTIONARY
ALSO AVAILABLE:
Typewriter with Unlimited Memory & 80 character LCD screen
Economical & Hassle Free Copier
Battery-operated Cash Register
Call for prices.
VISA
MasterCard
DISCOVER
NOVUS

Figure 5.21
A 2014 advertisement for battery-powered typewriters. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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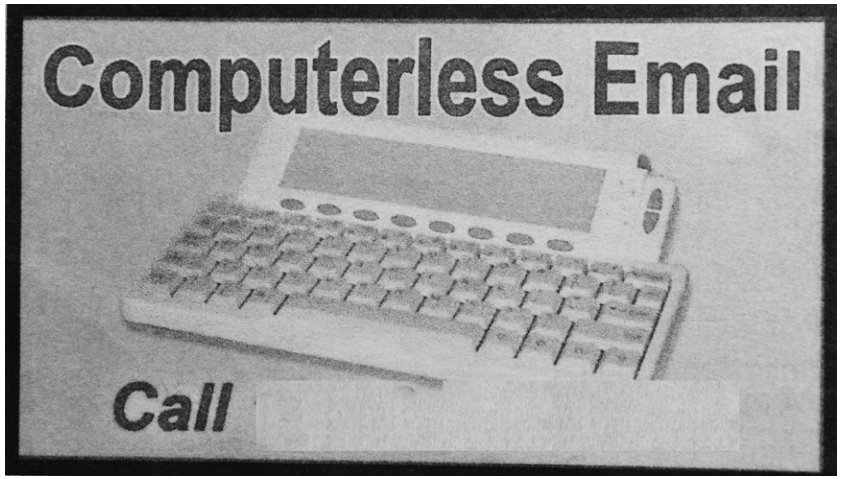

Figure 5.22
A 2014 advertisement for computerless email. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

purchase and use among Amish business owners. As discussed in previous chapters, today's Amish business owners are currently leading new and growing enterprises through challenging and changing economic times in their local communities. Many of these individuals are early adopters in their communities because they feel pressure to adopt such devices and services to be competitive and to ensure the acquisition of resources for their families and communities.

Purchasing and using the devices presented here help users perform a communicative function, often related to work. The communication that the artifact or service makes possible, given the particular material qualities of the device or service, allows the user to abide by the religious, cultural, and political values that sustain an unchanged (as much as possible) Amish way of life. These devices enable users to communicate while limiting their ability to access the internet or outside information. They do not allow a user to access entertainment-oriented activities such as watching videos, taking or viewing photographs, listening to music, or playing games. They do, however, allow users to have telephone conversations while on the go. They allow users to draft work-related documents, keep track of inventory, and create blueprints using computer-aided software, among other things. In the rare case in which a device or service enables users to email, it does

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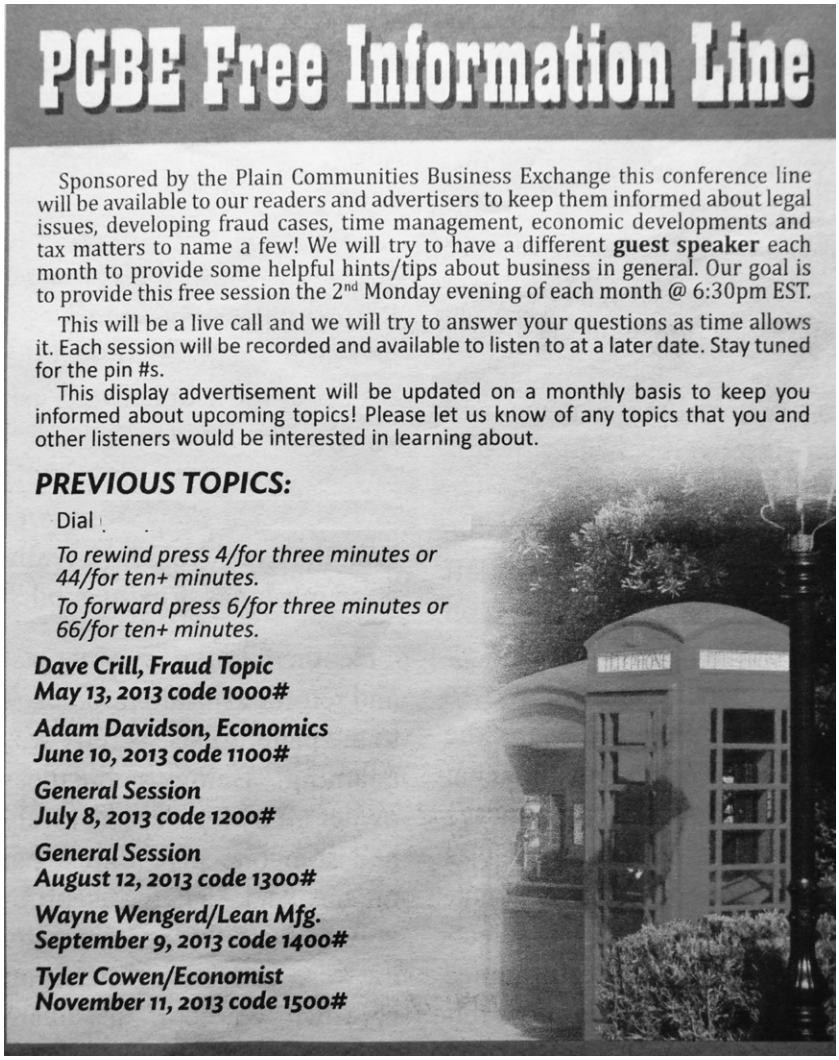
PCBE Free Information Line
Sponsored by the Plain Communities Business Exchange this conference line will be available to our readers and advertisers to keep them informed about legal issues, developing fraud cases, time management, economic developments and tax matters to name a few! We will try to have a different guest speaker each month to provide some helpful hints/tips about business in general. Our goal is to provide this free session the 2nd Monday evening of each month @ 6:30pm EST.
This will be a live call and we will try to answer your questions as time allows it. Each session will be recorded and available to listen to at a later date. Stay tuned for the pin #s.
This display advertisement will be updated on a monthly basis to keep you informed about upcoming topics! Please let us know of any topics that you and other listeners would be interested in learning about.
PREVIOUS TOPICS:
Dial
To rewind press 4/for three minutes or 44/for ten+ minutes.
To forward press 6/for three minutes or 66/for ten+ minutes.
Dave Crill, Fraud Topic
May 13, 2013 code 1000#
Adam Davidson, Economics
June 10, 2013 code 1100#
General Session
July 8, 2013 code 1200#
General Session
August 12, 2013 code 1300#
Wayne Wengerd/Lean Mfg.
September 9, 2013 code 1400#
Tyler Cowen/Economist
November 11, 2013 code 1500#

Figure 5.23
A 2014 advertisement for free information line. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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Figure 5.24
A 2014 advertisement for plain cell phone service. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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ONLY PAY $19.99 PER MONTH FOR YOUR
WIRELESS HOME PHONE SERVICE
This is an economical phone service
that plugs right into your existing phone.
Features: • Voice mail
• Caller ID
• 3- Way Calling
• Free Device
• Unlimited Local & Long Distance Calling
NEW DEVICES
with better signal clearer service & personalized caller I.D.
BLACK BOX
$19.99 a month + tax
BLACK BOX CHARGING ACCESSORIES
20 Watt Solar Panel Kit $125
Includes wire assembly from solar panel to battery.
Interstate Batteries
12 volt: 18 amp hour and 34 amp hour
We also stock
AAA, AA, D's and C's
12 volt charging cord for black box $15.00
Battery Clamps $10
50 Watt or 75 Watt Inverters available
Portable Bag
Various types of corded & cordless phones starting at $20 and up!
Reasonable shipping rates to anywhere in the U.S.A
(ICH KANN DEUTSCH)

Figure 5.25
A 2014 advertisement for black-box mobile telephone devices and service. *Source*: Reprinted with the permission of *Plain Communities Business Exchange*.

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so in a way that either severely limits the functionality of the device or introduces designed sociotechnical precarity. For example, the Computerless Email device is intended for the sole purpose of sending and receiving email. The screen is very small, and it is not possible to do anything else on the machine except write and send emails. The PcFreeMail service introduces designed sociotechnical precarity because it requires the use of a fax machine to send and receive messages through a third party, who translates and sends them to their intended recipient.

Additionally, the devices are made to be visible, durable, and secure. The visibility of the black-box phone is instructive, because it allows mobile conversations to occur, but unlike conversations via cell phone, talking on the landline connected to the black box is highly visible and audible to others. The fact that some of the plain computer manufacturers note that their device has a durable case and a "keyswitch" lock that opens the machine for use reflects a desire for use to be visible and for data to be protected from accidental or purposeful physical destruction or intrusion.

By creating and using unique artifacts and arrangements inspired by particularly Amish values, Amish makers fashion a distinctly political move: they identify themselves as particularly Amish and separate from the outside world. This shows deference to Amish rules, values, and traditions and helps sustain Amish social structures and reproduce Amish identity. Importantly, through idealizing the Amish maker and reproducing the spirit of Amish creativity in this new sociotechnical epoch, making continues as a revered functional activity and mundane aspect of everyday work. When viewed through a critical making lens, mundane making among the Amish, as identified in the arrangements and artifacts described in this chapter, is seen as a significant political move. By emphasizing the importance of continuing to create things that reflect Amish values, not those of the outside world, members of Amish communities remind themselves that they are different from outsiders and similar to each other. Importantly, privileging creation over consumption helps keep ideological foci local instead of remote. This can be seen as one component of a larger strategy aimed at adapting digital technologies for Amish use in a way that allows them to acquire the resources that they need to survive in the modern economy while protecting their cultural autonomy.

In this chapter, Amish patterns of creating, adopting, and using sociotechnical artifacts and arrangements have been described as mundane,

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everyday actions that have macrolevel political implications. These activities are inspired by a spirit of Amish making and extend our understanding of critical making as a concept. Instead of seeing critical making as an intervention that a researcher facilitates for research purposes, here, critical making is both an everyday activity *and* a significant component of a larger strategy aimed at protecting Amish cultural autonomy in an increasingly fluid, high-tech, networked social world. Namely, Amish workarounds act as made artifacts and sociotechnical arrangements that come to symbolize shared beliefs and values and work to mark the changing cultural boundaries of Amish communities.

The use of unique Amish artifacts and sociotechnical arrangements creates friction, acting as a speed bump, to guide users toward fulfilling Amish spiritual and functional goals. Such speed bumps celebrate values such as inconvenience, the publicness of communication, immobility, collective device ownership, and the ability to communicate emotion. By intentionally constraining the functionality of Amish artifacts and arrangements and by introducing an element of precarity or friction into a technology's use, a new digital technology becomes available to Amish users that facilitates collaboration yet holds the user accountable to his or her close social contacts. Adopting distinctly Amish artifacts and assemblages reinforces perceptions of Amish identity symbolically while allowing the individual to acquire financial resources necessary for survival. In privileging creation over consumption, ideological foci remain local instead of remote. Making digital technologies visible in this way emphasizes the tangibility of the connection between the means of communication and its desired ends. In this way, critical making is an important component of a larger Amish strategy aimed at protecting Amish cultural autonomy in the information age.

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6

INTERNET MANAGEMENT: CONFIGURING THE AMISH INTERNET

In the early 2010s, the potential of adopting and using the internet was a relatively taboo topic of conversation among the Amish. Over the course of ten months between 2013 and 2014, however, two Amish thought leaders published a series of nine essays in *The Plain Communities Business Exchange* (*TPCBE*) about if and how to adopt the internet for limited Amish business purposes. These authors, Christopher Petrovich and Fredrich Carl Heule, are early Amish adopters of the internet, and the questions, thoughts, and solutions discussed in their *TPCBE* essays provide invaluable windows into increasingly dominant Amish philosophies about internet adoption in a world where these information infrastructures are increasingly programmed by surveillance capitalists to control our behavior and make us dependent on them. In previous chapters, I outlined two distinct approaches to Amish technology use: strong teaching against it and use according to personal convictions. I was curious whether Petrovich or Heule would endorse such approaches or take a different tack altogether. Close readings of their essays reveal similarities to these approaches. Petrovich adopts a strong teaching against stance and suggests that Amish people should avoid the internet because its use is inherently incompatible with the accomplishment of Amish goals in Christ's kingdom. Heule, on the other hand, takes more of a use according to personal convictions approach, arguing for the reader to become informed about what the internet is and then, guided by Amish ambitions, delegate internet tasks to a non-Amish colleague. Although these views seem distinctly different, there are also important commonalities to consider. In effect, both strategies, outlined in the following pages, compel readers, as they consider adopting the internet, to first identify their business goals. Second, they should seek to understand how various communication media, including the internet, work. Third, they should work to tailor their communication mechanisms for the fulfillment of their goals. Petrovich makes his case in two articles in a series

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titled "*The Internet Question*." The first of Petrovich's essays appeared in the December 2013 *TPCBE*, and the second was published in the January 2014 edition. In this series, Petrovich provides philosophical and religious reasons for Amish business owners to avoid adopting the internet. Heule, on the other hand, outlines his views in seven essays in the series "*Internet Management: How to Be Successful Online without an Internet Connection*." These essays appeared one per month from June to December 2014.

THE INTERNET QUESTION, CHRISTOPHER PETROVICH, DECEMBER 2013—JANUARY 2014

At the time of publication of his esssays, in contributing author Christopher Petrovich's estimation, "The use or non-use of the internet seems to be a live question among many plain Anabaptist groups" (2013, 16). According to Petrovich, the variety of thought on this topic among Amish entrepreneurs ranges from "absolute rejection to joyful acceptance [of the internet]" (16). Petrovich finds this baffling and believes that Anabaptist churches have "a clear enough perspective on life" and "consistent . . . interpretation of Scripture" to reach a moderately unified response to the "Internet Question" (16). Despite the range of diverse feelings across Anabaptist groups, Petrovich attempts to answer "the simple but important question—What should our response [to the Internet Question] be?" (16).

In his first essay, Petrovich interrogates the claim that plain Anabaptist communities *must* embrace the internet. As he sets up his argument, he identifies potential advantages to adopting the internet. Among these is the fact that selling products online would improve the marketing power of Amish businesses. Second, he believes that going online would enable Amish businesses to "stay ahead of the game." For example, today the tax code is published exclusively online, he says. This makes it increasingly difficult to do business and pay taxes without the internet. More specific benefits of the internet, according to Petrovich, include (1) the ability to access books and other products not available in the local community, (2) the ability to communicate and transfer data cheaply and quickly, (3) the accessibility of information, and (4) lower overhead expenses for business owners.

Despite these advantages, Petrovich believes that they do not outweigh the potential drawbacks for Amish business owners. Most importantly, he says, "The internet, by definition, links computers together irrespective of the moral or religious convictions of their owners" (2013, 37). According

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to Petrovich, "Purchasing a computer and connecting it to the internet entails forging a connection with the wider world" (2013, 37). Petrovich continues by discrediting the claim that if Amish businesses do not adopt computers and the internet, they "won't be as competitive and won't earn nearly as much money." He questions whether this is actually a problem. Apparently, for many it is, he says. "But why is money such a concern? After all, we are some of the wealthiest people in the world" (2013, 18). Petrovich recalls a backpacking trip that he took through Kosovo in which "six or seven Gypsy boys . . . [were] hanging onto [his] sleeve . . . begging for money. . . . We live in a very affluent, comfortable, environment and yet some of us seem overwhelmingly concerned that we keep up with the Joneses. But why?" (2013, 18). Petrovich questions the assumption that connecting to the global information economy will deliver the type of returns that business owners seek. For him, it is shortsighted to think that a business will not survive if it does not go online. Instead, he believes that it may not make excessive profits but that this should not be a concern, because his readers (apparently) live in relatively affluent circumstances. His thoughts reflect a sentiment that I heard frequently in my interviews as well: that blindly chasing after earthly wealth and possessions fuels discontentment because it distracts from the more honorable pursuit of time with family and spiritual prosperity. In this move, Petrovich is asking readers to identify their business goals. Are they to make money—a worldly ambition? Or are they to achieve success according to the principles and values that govern Christ's kingdom, including dedication to God, family, community, and tradition?

As Petrovich's essay continues, he identifies and evaluates three primary arguments given by plain Anabaptist church members for using the internet. First is a tendency to think that church standards conflict with being led by the Holy Spirit. As a result, he says, some people have suggested that we need to get rid of our "man-made rules" and "restrictions" and instead be led by the Spirit of God. Here Petrovich takes issue with the approach to technology use that is guided by personal convictions—a philosophy held by many people whom I interviewed for this book. According to this viewpoint, removing church rules that prohibit internet use would allow people to use the internet according to their convictions or the Holy Spirit working inside them. Petrovich, on the other hand, believes that this is dangerous. In discrediting this claim, he says, it is "not an either–or situation."

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People are not led by church regulations *or* the Spirit of God, but by both concurrently. Lives are lived according to the Spirit of God *and* patterned according to the *Ordnung*, he says.

> So many of our actions are dictated by rules, rules that order life and without which we could not make sense of what is going on, nor figure out what the next step ought to be. And at the same time so many of these choices are made subconsciously, following the course they do because they were channeled by experience and habit, not individual "Holy Spirit leadings." Therefore, it seems that those who confess they want to be free of church regulations in order to be led by the Spirit simply don't understand what they are claiming. (2013, 20)

According to Petrovich, the second source of resistance to limitations on the internet among Amish business owners is a lack of historical consciousness. To illustrate this, he says, he has met people who are members of very specific denominations but have little idea how the tradition of their group originated, "how it got to where it is today, or where it is headed." Petrovich finds this "very problematic." For him, lacking historical consciousness about one's religious and ancestral traditions and heritage makes it easier to engage in potentially dangerous behaviors. He believes that one should think about one's behavior and modify it to adhere to trajectories outlined in the Bible, not rely on divine whim to direct a person along the right path.

The third source of resistance to limiting internet use, according to Petrovich, is the adoption of "societal patterns." In this section, Petrovich uses the word *societal* or *society* interchangeably with *worldly* or *of the world*. According to Amish teachings, thinking like the world is becoming one with the world, and the Amish view themselves as pilgrims *in* the world; they are not (or should not be) *of* the world. For Petrovich, adopting the internet is a move toward thinking like the world. He says, "Yes, we might be a member of a church tradition that identifies itself as 'plain' but if we think like the world, we are members of the world and sooner or later it will become apparent [to God] that we have been with the world." Here again Petrovich urges against the adoption of the internet because he fears that it could lead to spiritual danger and cultural and social assimilation with outsiders. He thinks that being less concerned about "earthly comforts" and "one's reputation in the eyes of the world" will help people lead a life more pleasing to God. To put a finer point on it, Petrovich says, "I

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believe that many arguments in favor of complete acceptance of internet usage on the basis of 'the need to succeed' are ultimately grounded in principles that are contrary to the teaching of Scripture and will ultimately lead toward assimilation with society" (2013, 23).

In Petrovich's second (January 2014) essay, he spends a considerable amount of time evaluating the material characteristics of the internet and answers the question, "What exactly is the internet?" (2014, 37). He describes the internet as "a vast network of computers that share information with one another." This network, he continues, "is not restricted to one geographical location but instead crosses international borders and spans the globe." Anyone with access to the network can view the information that another person has posted using the World Wide Web. For Petrovich, this characteristic is undesirable because it creates a link between individuals regardless of their moral or religious convictions. Petrovich also critiques the internet's material nature because it is an unfilterable medium often used for entertainment. The fact that the internet is unfiltered is a distinct problem for him because it enables "instant access to anything and everything, from the nicest sermon notes to the vilest satanic machinations" (2014, 38). Additionally, Petrovich notes, "The internet has also become an astoundingly popular medium for watching videos and listening to music. . . . Thus, it also functions as a medium of entertainment" and "should be seen as similar to the television." According to Petrovich, the internet has the potential to "damage human beings to a far greater extent than television has ever done" because it is "wide open," in contrast to television, which is "filtered." Via the internet, he worries, children could gain access to "the most disturbing programs that a person could imagine." For these reasons, Petrovich cannot understand why Anabaptists would accept unfiltered access to the internet if they are agreed in not permitting filtered (broadcast) television. In this way, Petrovich believes that a top-down filtering approach is needed, in which an authority determines what content is available for the consumption of others. Because Petrovich acknowledges that there are some advantages to the internet, he asks, "Isn't it possible to filter the internet?" In answering this question, he states that it is possible but "not totally, and probably not very effectively" (2014, 39). For him, filters are problematic because they can be easily bypassed by tech-savvy individuals. He also worries that a software program is not a sufficient judge of moral character.

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> It just isn't very easy for a computer program to be able to discern between a good and a bad picture, or between good writing and unedifying writing. And even if we could design a program that would filter the good from the bad, whose opinion of good and bad would we use? (2014, 39)

In this way, Petrovich believes that limiting access to outside information through enacting shared, agreed-upon rules about technology adoption is the best way to empower the Amish and help sustain their way of life going forward. He believes strongly that anything short of outright rejection would encourage Amish people to be one with the world and that this could mean the dissolution of the Amish culture and way of life over the long term.

Petrovich continues by reflecting on existing technologies that were rejected by the Amish because they were seen as dangerous to indigenous cultural autonomy and local social structures. The automobile, Petrovich notes, was outlawed in the early twentieth century because it increased mobility, and this stood to undermine a belief that the local community should be the primary site for work and social life. Comparing automobiles to the internet, he says, "If we object to automobile ownership because we do not want such frequent interaction with society, I don't know why permitting internet access in our homes and businesses would even be a live question" (2014, 39). He is also concerned about the "potential of social networking to undermine the authority of locally oriented religious communities" (2014, 39). He explains,

> Suppose that your son or daughter is going through an intense personal struggle. Perhaps they are living in rebellion. If they have ready access to a social network that spans the globe they will be more likely to try to fill the void in their life with the cheap wares provided by distant "others." (2014, 39)

Additionally, Petrovich is concerned that if Amish people open themselves

> . . . to the entire world and their thoughts and ways, our council meetings will no longer hold the sway that they should because the youth might compare the local church with thousands of other churches, congregations that they have had no personal experience of but might look better than ours when viewed from a distance. . . . I don't think some people see the inherent dangers, the way that social networking will shift our focus from local communities to the wider world and thus shift the balance from community-oriented church authority to becoming one among many brands competing for a share in the open religious marketplace (2014, 39).

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For Petrovich, the potential advantages of the internet for Amish businesses do not outweigh the risks. For him, it comes down to achieving a specific balance. He is not suggesting that the Amish be so isolated that there is no interaction with people outside the community, but "we need an appropriate balance," he says (2014, 40).

> We need to forge personal bonds in our local communities. And we also need to reach out to those that are lost and in need of a Savior. However, if we spend a considerable portion of our time on the internet, and as a result less time with the brothers and sisters in our local community, we will become worldly. And what, then, will we have to offer a perishing world. (2014, 40)

In his conclusion, Petrovich emphasizes his concerns about the future of Amish churches that want to be both "plain" and internet friendly. He thinks that "the road will eventually fork and congregations will be forced to decide whether they want to be plain or internet friendly, one or the other, not both."

Petrovich's essays are enlightening because they point to concerns shared by a number of Amish people I spoke with. Although he agrees that a balance is needed, for him, the response to the internet question falls along the conservative or tradition-minded end of the spectrum. He advocates largely for a strong teaching approach against technology use. Thus, for him, use and access should be limited by the inscription of formal rules in the *Ordnung*. He comes to this view by urging readers to privilege the ends or goals for their work that fit into a taxonomy of values and authority that structure Christ's kingdom, as opposed to the world's system. Interestingly, his second article expands on this perspective by educating the reader about the mechanics of the internet. Namely, he shows that the internet, as a means of communicating and doing work, is unfit for fulfilling the Amish ends under the authorities governing Christ's kingdom.

INTERNET MANAGEMENT: HOW TO BE SUCCESSFUL ONLINE WITHOUT AN INTERNET CONNECTION, FRIEDRICH CARL HEULE, JUNE 2014–DECEMBER 2014

Whereas Petrovich believes that limiting the adoption of the internet is the appropriate way forward for Amish churches, Friedrich Carl Heule offers an alternative approach. In the first of seven *TPCBE* essays, he identifies himself as a "fairly sophisticated" internet user who is also "amazed and

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somewhat bewildered by its presence, power, and rapid evolution" (2014a, 44). He remembers when his father's business went online in the 1990s and says that today "the internet intersects nearly every aspect of my personal and professional life, and I do not see a future without it" (44). Heule views the internet as a utility, much like electricity, gas, and water. Unlike these traditional utilities, however, Heule says, "Consumers can access the internet with and without wires, and the ramifications of this massive, shared computer are affecting all people, including those in the plain communities" (44). For example, he continues, "Major telephone companies want to remove landlines and the United States Postal Office is closing remote branches. Why? Because these organizations *assume* that everyone has cell phones and has access to email. What will happen when these organizations make the final transition to the internet for its computing power?" In his answer, he mentions fiction author David Eggers's (2013) dystopian novel *The Circle*, in which "his characters lose their personal freedom because the internet is creating a hyper-connected society, one that demands total participation and complete transparency" (44). "Even self-sufficient families," Heule says, "cannot escape the growing reach of the internet in this dark work of fiction" (46). Heule believes that had Eggers addressed the plain communities in his book, the ending would not have been so daunting, because "historically speaking, plain entrepreneurs have overcome these kinds of challenges many times before" (46).

Heule says his series of *TPCBE* essays is aimed at overcoming the challenge facing Amish entrepreneurs today: continuing to acquire the resources necessary for survival while adhering to Amish values when customers and suppliers operate in an increasingly internet-connected world. From Heule's perspective, "Today's entrepreneurs navigate a hyper-connected economy, and must go online to simply survive. This means that a successful 'offline' operation is highly unusual, and the decision to stay offline can be interpreted morally and strategically" (2014f, 34). When an off-grid entrepreneur serves non-Amish customers or has non-Amish suppliers, he states, they are likely to benefit from the computing power provided by the internet. For him, "internet management" is the process of selecting and outsourcing the right combination of related activities. Heule's stance is that "a business does not need an internet connection to be successful online" (46). Instead, he believes that "an internet-free business needs a plan and a strategy for managing and outsourcing its internet needs and its presence

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online" (46). The goal of his *TPCBE* essays, then, is to educate entrepreneurs so that they may develop such a plan.

The concept *internet management* is a system of decisions and actions that can be managed by a business owner, according to Heule. Additionally, internet management is offered as a solution for steering clear of the dangers associated with internet adoption, as outlined by Petrovich. Heule's view is that business owners can empower themselves by learning about the internet so that they can make decisions and communicate their wishes to others who will actually engage with the technology and do the work for them. He says that many plain entrepreneurs already outsource tasks related to their businesses, such as transportation, accounting, photography, design, printing, and mailing, so the system already fits within current business practices. Having knowledge of these matters, according to Heule, is not the same as having "direct access to the internet, but the knowledge is far more valuable when it is applied correctly" (48). According to Heule, internet management is the process of delegating internet tasks to persons with an internet connection. This allows a business to conduct its core operation offline but "still utilize digital resources on the internet for secondary tasks" (2014c, 52). This, he thinks, allows the owner of an off-grid business to manage his internet-based assets "as efficiently as the CEO of a major company: in both cases, awareness and sound delegation are more important than the internet connection itself" (2014c, 52).

Heule provides practical information for enacting internet management techniques. He teaches readers what the internet is in physical terms, how to outsource internet searches (2014b), and how to understand and make good use of one's digital presence without compromising personal conviction or security (2014c). In so doing, he explains why it is important for a business's website to appear in the first pages of Google search results, how one can employ digital marketing strategies to segment and target ads to specialized demographic groups, how companies pay search engines that drive traffic to their websites, and so forth (2014d). In one essay (2014e), Heule takes up social media marketing as a topic of discussion. He explains social media for Amish readers in terms of newspapers aimed at Amish audiences, such as *Die Botschaft*. The content of these newspapers is also user generated, because each article contains a letter from a representative of an Amish church district who writes with news from the community. The letters are compiled and printed on newsprint and arrive in subscribers'

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physical mailboxes once a week. According to Heule, "Social media existed long before the internet" and "is simply a technological evolution of the long-standing tradition of printed communication" (2014e, 40).

He highlights a few differences associated with the material character of online and offline social media. For example, "Compared to printed social media, the digital alternatives are the ultimate aggregators of personal data and they collect and sell information like names, addresses, family connections, health issues, professional interests and much much more" (40). Additionally, news sent through printed social media travels much more slowly than through online social media. Heule discusses the widespread popularity of social media platforms such as Facebook, LinkedIn, Twitter, Instagram, Vine, YouTube, and Pinterest. He identifies ways for readers to use the personal data that users of these platforms generate for their own business purposes. By utilizing this kind of data, he says, businesses can "mine for specific kinds of customers" (48). According to Heule, "Through social media, a company can educate, reward, and help its customer base, and in exchange, customers benefit from better service" (48–49).

In his sixth essay, Heule discusses mobile media marketing and video marketing. He discusses the advantages that he sees in utilizing both these channels of influence for business owners. For example, when traveling, he uses the mobile app Yelp to locate and select restaurants to patronize. Additionally, his father, who is a horseman, watches videos on YouTube to learn various horse-training techniques. Unlike Petrovich, he thinks that YouTube offers an advantage over television because its content is aimed at a few thousand viewers whereas television content is intended for millions of viewers. According to Heule, "The luxury of choice and the reversal of power has slashed the heels of mainstream media and has empowered content creators who promote niche categories" (2014f, 38). In this way, in contrast to Petrovich, Heule sees a decentralization of content through technology to be an advantage for people in plain communities. Unlike Petrovich, he does not believe that the lack of a filtering authority, as used to be present with broadcast television, is a problem. Heule describes the utility of YouTube for Amish business owners by identifying a business that made use of the platform to provide visual instructions for the use of a unique heating device for off-grid living. In noting the video's poor production quality, he says,

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> I believe this online video was created by a third-party jobber—in other words, "a guy with Amish neighbors." Even though the production value was far from professional, seeing the various parts of the machine and how they work could influence the most skeptical consumer to make a purchase. (38)

Heule thinks that plain entrepreneurs, who are known for their exceptional record of mechanical innovation, could greatly benefit from video marketing.

In his final essay, titled "*The Big Picture*," Heule suggests that the information he presented in his first six essays was meant to help readers formulate their own answer to the question, "How can I use the internet to solve a business problem without damaging my relationship to God?" (2014g, 34). Heule says that "there is no rush to go 'online,' and when it comes to using the internet, it is better to analyze the pros and cons of new technology than thoughtlessly adopt it" (35). He cites Cambridge technology scholar John Naughton, who says, "One thing we have learned from the history of communications technology is that people tend to overestimate the short-term effects of new technologies—and to *underestimate* their long-term implications."

Heule uses the internet to solve business problems in a way that he believes is harmonious with his relationship to his Savior. In daily life, however, he says, "I still limit this activity as much as possible" (2014g, 40). According to Heule,

> Some people celebrate the evolution of information sharing and others are terrified by it. Internet management acknowledges a grey area where individuals and businesses *choose* their level of exposure. It also challenges the assumption that any person or business can completely sever their ties to the internet. (2014c, 60)

Petrovich and Heule's insights shed light on Amish thinking about adopting the internet and computers in today's globally networked world. Petrovich and Heule both see a need for placing limits on internet use and adoption and making sure that Amish businesses are not so isolated that they become irrelevant to outsiders, given a rapidly changing economy. Both also seek to find an appropriate balance where these two vectors intersect. For each author, however, this point of intersection is different. Petrovich emphasizes the importance of limitations and agreed-upon church rules

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for guiding appropriate technology use. His views align with those who believe that strong teaching is the best approach to limiting technology use. He thinks that an authority is a better filter of content than an individual. Heule, on the other hand, thinks that giving readers as much information as he can about the various components of the internet and how they can be used for conducting business among the Amish will allow readers to make their own decisions about whether or how to utilize the internet to achieve their goals. Heule embodies the approach to technology use that is guided by personal convictions. Interestingly, both authors find it important to help readers understand what the internet is and show how these mechanical components can (or cannot) be utilized to fulfill Amish goals.

Heule's strategy of internet management is intended to enable business owners to utilize the internet without an internet connection. This strategy is composed of a series of decisions and actions that can be managed by the leader of an organization. It calls on the leader of the organization, a cultural insider, to learn about the internet so that the leader can make decisions and communicate his or her wishes to those who will use the technology and do the work. Thus, internet management is offered as a solution for steering clear of the dangers associated with internet adoption, as outlined by Petrovich. By outsourcing internet-related activities to a non-Amish person, the Amish business owner empowers those in the organization to live and act according to shared community values. In this way, Heule is calling for readers to use a version of the print shop outlined in the previous chapter to introduce a speed bump and an element of precarity in the sociotechnical arrangement. The desired outcome of configuring the communication system in this way is to protect community members' souls from the dangers associated with access to unrestrained inward flows of information. In this way, Heule articulates a workaround that enables Amish communities to connect to the global information economy while protecting their cultural autonomy.

Before the introduction of digital technologies, Amish communities were made up of isolated tight-knit social networks that were often interconnected with one another but were generally disconnected from outsiders. The links in these networks represented relationships that were largely sustained via face-to-face communication through travel and migration. As technologies came on the scene and the economy changed, the networks largely stayed the same, even though relationships within the community

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were now sustained via telephone, email, and other options. This is somewhat remarkable, because it has not been the case in the non-Amish world (Putnam 2000; Wellman 2001). In the non-Amish world, we have become networked individuals who no longer participate in local clubs and unions in the way that our parents and grandparents did. We rely on large institutions to deliver the goods that we need to our doorsteps instead of patronizing our local establishments. Our families are increasingly dispersed, living in different cities, states, and even countries today.

Heule suggests that with effort this does not have to be the case among the Amish. For him, the internet represents a channel that the Amish can open when they want, a channel through which they can connect to the outside to accomplish their goals and satiate their needs: filing taxes, medical research, advertising, and so forth. The key, from this viewpoint, is to make the switch that opens this channel excessively visible and to educate users about what is happening technologically when the metaphorical switch is opened. This, according to Heule, will help protect the small, tight-knit networks that are key to Amish spiritual, cultural, physical, social, and mental well-being. It is especially important to ensure that members of the community utilize the network for Amish reasons. When successful, Amish communities effectively place their hand on a switch that controls the information flowing into their communities. In this way, the Amish prevent exposure to non-Amish corporate advertisements that encourage conspicuous consumption and to governments that encourage dependence on anonymous institutions and spiritual and emotional control.

In summary, from Heule's view, internet management makes it possible to resist (or reduce) the influence of these forces on indigenous social structures and cultural autonomy by managing and manipulating the configurations of their social networks and routing information flows. The key to doing this is by utilizing a buffer that mediates an Amish person's use of the internet. This intermediary is instructed by an educated Amish business owner to accomplish digital tasks that will ultimately help the Amish person fulfill his or her goals. In this way, Heule also believes that the user should understand the means of communication and must work to tailor the means to a desired Amish end.

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7

HOLISM AND A PREFERENCE FOR FACE-TO-FACE COMMUNICATION

Across a variety of vectors among a diverse array of Amish insights, I observed a clear preference for what philosophers of technology Albert Borgmann (1984) and Don Ihde (1990) observe in their assessment of how technologies facilitate the fulfillment of human values. According to Borgmann, technology has increasingly acted to restructure our social world over the past three or so centuries (1984). He finds this problematic because "to speak of a deeply ingrained pattern is also to say that the pattern may be difficult or perhaps impossible to see. . . . It is understood in the sense of being taken for granted" (35). In a summary of Borgmann's work, Pieter Tijmes says that despite the fact that "technology provides the inescapable horizon of our existence," it also "tends to become invisible" (2001, 19–21). For Borgmann, it is only when such a patterned way of doing things breaks down that we are able to see it clearly, and identifying new ways of doing things is otherwise nearly impossible. The fact that technology shapes our social world and at the same time is hard for us to perceive has important implications for our ability to act intentionally when it comes to enacting our moral and ethical values. Indeed, Borgmann notes that we have very little choice today about whether or not we choose to adopt technologies. As a result, we often see ourselves either as powerless in stopping the inertia of technological development or as having a responsibility for choices made at each step in the process of change.

Don Ihde also sees technologies as nonneutral objects that mediate and change our experiences with reality. Even seemingly ubiquitous technologies such as eyeglasses are capable of altering a user's behavior. "For every revealing transformation there is a simultaneously concealing transformation of the world, which is given through a technological mediation. Technologies transform experience, however subtly, and that is one root of their non-neutrality" (1990, 49). Furthermore, for Ihde, to begin discussing the morality of a technology, one must first reveal the inner workings and the

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way in which the technology mediates a relationship between the user and the world (1990). Only then can a user work to fulfill his or her moral or ethical values through the use of technology.

Like these authors, the Amish also believe that technologies are ethically nonneutral. They lead users in a direction that weakens their ability to fulfill moral and ethical goals. Instead, in many cases, users are agents in the fulfillment of governmental and corporate goals. To empower users, the Amish seek to make the means or mechanics of a technology visible and then ensure that it is limited in its use and is precisely tailored to the fulfillment of specific Amish goals. In essence, they pursue minimalism and holism, where connections are visible among all facets of daily life. This allows them to take control of their tools—not the other way around.

This quest for holism, observed here specifically in terms of digital technology use, undergirds all aspects of Amish life. When asked what it is that we can learn from the Amish, I always come back to this pursuit of unity, holism, and interdependence that I find most enlightening and illustrative. In today's increasingly complex, dynamic, and technical social world, it seems that we all strive for this kind of simplicity and control, despite the fact that technology companies work endlessly to obscure the labor, technology, and financial operations at the core of our devices' functionality.

In the most transformative moments in my fieldwork, it seemed that this topic was always bubbling under the surface. For Amish participants, holistic communication involved maintaining a tangible connection between the communication medium and an intended outcome. For them, this manifested most poignantly in a decided preference for face-to-face communication so that one's emotion could be read in nonverbal cues while doing work, making plans, and conveying information of all kinds. For example, in one of my first interviews, an Amish business owner told me that he thought that digital technologies "ruined *real* communication." For him the word *communication* was synonymous with face-to-face communication. He said, "For families, communication is very important, but it needs to be face-to-face, eye-to-eye, sit down and talk . . . out on a boat or whatever." The belief that face-to-face, collocated communication was inherently better than the digital forms of communication available today was shared by all Amish participants. They believed that this type of communication was the best way to convey emotion, show respect for communication partners,

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achieve a complete understanding of messages, limit access to objectionable worldviews, avoid temptation, and maintain control over messages sent. All these, they thought, helped create environments that were morally and ethically sound. They also believed that these environments were beneficial for the physical and spiritual health of individuals, helped strengthen social bonds in the family and community, and reproduced Amish identity and social structures in future generations.

One question that I asked almost everyone I met was, "What differences do you see, if any, in communicating via phone or in person?" Of the many responses I received, this one from an Amish minister summarizes feelings expressed by numerous others:

> I have very, very strong feelings that nothing can replace face-to-face conversation. Looking each other in the eye, seeing facial features, seeing the look in the eye, whether it be a bright look, or sadness, or frustration, or sorrow. Nothing can compare. Nothing.

Similarly, Perry, a minster and business owner, reported that a phone conversation had "no comparison" to a face-to-face conversation "because you're with your friend and you can see their feeling." Repeatedly, participants told me that it was impossible to communicate emotions through the phone or computer.

Understanding how someone thought about something was important because it became associated with a person's identity or reputation over time. On important or controversial topics, one did not state an opinion flippantly or sarcastically. In talking with people, I often heard things like, "[so and so] knows how I feel about that," or "[so and so] knows how I would react to that." They would say, "[such and such] saddens me," or "I would have been deeply ashamed by [that]." In this way, emotions and feelings seemed to accumulate over time and contour a business owner or church leader's reputation.

Although cell phones and computers were allowed at his work, Andy, a deacon and co-owner of a construction company, thought that face-to-face communication was more meaningful than digital formats. He said, "If I want to tell you you've done a good job, it makes less of an impact if I send you a note via email or by text than if I make a point to tell you face-to-face." In the same way, "I can be nastier to you through phone/text because I might feel okay saying something I don't have the courage to say to your

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face." When asked why face-to-face was better, he said, "There's more in-depth value transferred in the conversation." Even though he reported using a cell phone "all day, every day" for work, he clearly believed that face-to-face communication was preferable over other options available to him.

David, a bishop, believed strongly that digital technologies removed emotion from human communication. In a conversation about text messaging, he stated that love cannot be expressed via text message. "Can you feel love through a text?" he asked. "No. You can't. . . . [With technology] you can communicate and connect with others but there's no life in it." The kind of communication that connected people, for David and many other informants, could only occur face-to-face. Communicating through technology for them only went halfway.

For participants, feelings were part and parcel of everyday information exchange, and removing even a portion of this through talking on the phone, texting, or emailing, whether in business situations or not, was less than ideal. Generally this was undesirable because emotion was seen as essential to the maintenance and development of strong family and community bonds. In these verbal and corporeal communicative exchanges, informants believed that they were better able to understand how their communication partner felt about the topic that was being discussed and to know how the person thought that it was important to them. In short, in ideal circumstances, the information exchanged and the feeling of the communication partner, as expressed via bodily or verbal cues, were inextricable from one another. Thus, one reason informants preferred face-to-face communication over other media was that these communication channels carried information inherently imbued with human emotion, and this emotion helped establish and maintain bonds with family, church members, and colleagues. In this sense, there was a preference for communicating in a way that made a tangible connection between the emotions of an individual, information exchange, and community coherence.

Other informants worried that if digital technologies were brought into the workplace it would mean less fulfilling work for employees. On one occasion in my fieldwork, I was accompanied by the director of a local historical museum. We arrived at a wood furniture workshop unannounced in the afternoon. We received a warm welcome by the receptionists, who introduced us to a floor manager named Ben. Ben broke away from the

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work that he was doing to give us a tour of the facility, where forty-five employees worked. He showed us the workshop's tools and how the products were created, from raw bulk lumber to painted, finished, and assembled furniture. He showed us the workshop's very high-tech electric equipment, including a table saw that had an automatic turn-off mechanism if the blade came into contact with human flesh. Ben said that this feature was demonstrated to him at a trade show, where a salesman put a hot dog in contact with the blade, causing the machine to turn off. After the tour, Ben introduced us to the company's owner, Sam, who invited us to sit down in his office. I asked Sam a number of questions about technology use in the Amish community, which ignited a deep philosophical and existential conversation. When I told him the reason for our visit and what I was writing about, his eyes lit up. He informed us that he was a "tech buff" and that as a young man, he never thought that he would join the Amish church because he enjoyed tinkering with, using, and fixing electronic and mechanical gadgets so much. He informed us that he had taught himself how to do these things from a book because he had only an eighth grade education, and electronic and mechanical skills were not taught in school, as was the norm among the Amish.

He explained that recently the church leaders in his district (one of whom worked for him) had decided to allow plain computers. Sam thought that church leaders had made a mistake by allowing these. He said, "They don't know what they've done." He did not want a plain computer because, as he said, "If it were sitting here in my office, I don't think I'd be able to control myself from tinkering around with it. It wouldn't take long and I could automate the entire workshop. These computers are very powerful. That would put forty-five people out of work." In making decisions like this about adopting technologies, Sam said, "I consult my conscience." For him, it was of utmost importance to create a work environment where people could make an honest living and feel spiritually fulfilled by working there. In this way, adopting a plain computer was seen as possibly disrupting a larger ethical goal of providing a spiritually fulfilling work environment for as many people in his community as he could.

Others expressed preferences for face-to-face communication because they saw it as essential for the development and maintenance of close-knit family and community bonds. In a discussion about the adoption of new digital technologies, Howard, the owner of a small RV motor repair

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company, told me, "The more I can live my life without the modern conveniences, the better life I am going to have . . . for me and the family." He went on to explain that digital technologies weaken family bonds.

> The more modern conveniences you're going to introduce to the family the more you're going to lose what's really worth. . . . The more conveniences that creep in here, the more dysfunctional our family will become . . . the further apart we will become. . . . We won't have the closeness. . . . Right now, when I come home, we usually sit around the kitchen table and we either eat a watermelon or peaches and we share the day. We ask, "What have you kids been doing?" or we talk about what we're going to do tonight. And we always . . . just always, we sit around the kitchen table and we share the day. In the morning we do the same thing with the kids before they go to school and we have our morning devotions. Now if we have this technology in the house, there would be no way I would have time to do that and the kids wouldn't either. . . . It would make our family dysfunctional.

Howard's comments reveal a spirited dedication to maintaining strong bonds among the members of the family. From his point of view, digital technologies would disrupt these bonds. This was his primary reason for rejecting new communication devices in his work and at home. He thought that routinized face-to-face interactions, either while eating or through spiritual edification (and sometimes both), helped build strong bonds among family members. He believed that introducing digital technologies into the home would distract his family from those routine activities and weaken family bonds.

According to participants, face-to-face communication required individuals to work to make arrangements that brought bodies together. Because automobile travel was not an option and individuals lived in sparsely populated rural areas, planning was necessary to overcome a significant geographic barrier to communication. The kind of planning that brings bodies together, then, was meaningful for Amish participants because the work involved showed respect for communication partners and their religious convictions (which prevented them from owning a car or smartphone).

Noah accompanied me on a visit with a bishop and business owner named Victor. In our conversation, Victor reported experiencing frustration when his non-Amish customers would expect him to stop everything that he was doing and tend to their emergency. His engine repair shop had normal business hours and closed for the evening at five o'clock. At that

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time of day, he typically went home to be with his family. Sometimes when his customers experienced an unexpected engine problem, they wanted him to respond and provide service immediately, whether during business hours or not. Although he found this frustrating, he could understand that engine breakdowns sometimes happen unexpectedly. What he found less understandable, however, was when his regular customers, who did not have emergencies, would expect that he work through an evening to have their engine repaired and ready for them to use the next day. Noah sympathized with Victor's frustration. A common adage came to his mind that he thought captured the sentiment well: "A lack of planning on your part does not constitute an emergency on mine."

Both men thought that new digital technologies such as the internet and cell phones contributed to a widespread complacency toward making plans in advance and sticking to them, especially among their non-Amish customers and coworkers. They believed that it was partly because of the ubiquity of cell phones and internet access that "when people want something, they want it right now," according to Victor. This, however, does not fit well into the Amish way of life. In his view, if people want him to work after hours, this disrupts time spent seeking spiritual fulfillment and bonding with family or community members.

Some participants noted the disadvantages of digital technologies because they believed that they poisoned holistic systems: they fractured mind from body and individuals from the collective. Many participants discussed digital technologies such as cell phones and the internet in terms of psychological diseases, especially addiction, that were capable of infecting individual and collective bodies. For example, Nelson, a sixty-two-year-old harness maker, told me, "Cell phones were the worst addiction to hit the United States." Many participants shared his concern that cell phones and smartphones were dangerously addictive. These concerns stemmed from a desire to pursue holism in the connection between mind and body and in connecting people to one another. In this case, digital technologies were seen as working to separate an individual's mind from his or her body and the individual from the collective.

Becoming overly dependent on technologies was often associated with a mental, social, or cognitive impairment at the individual level, which had group-level implications. Andy, a forty-two-year-old deacon and business owner who used a cell phone daily for work, said,

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> If you're not in business, having a cell phone is a detriment to our way of life. You lose personal contact if you send a text message instead of talking to someone face-to-face. You can become so dependent on it that you lose the ability to plan ahead. It's just about impossible to function without [cell phones and computers], but we don't want to rely on [them]. With computers, people don't learn to think on their own. If you go to a store and the computer doesn't work you often can't pay for what you need or people can't count your change back to you.

"God put a brain in our head to use. If we don't use it our brainwaves will get stagnant," Andy continued. He thought that the brain and body should work together independently of any technological help, such as using a calculator for math calculations.

Similarly, in my conversation with minister and business owner Floyd, the topic of GPS technology came up. I mentioned that it had been useful for me in navigating the country roads during my fieldwork. I feared that I might be growing too dependent on it, however. It was becoming harder and harder for me to recognize which way was north without looking at my smartphone, I confessed. Floyd, who owned a fencing installation company, reported using his smartphone's GPS to travel to distant work sites. For navigation in his community, however, he relied on training that he had received during his school days. In one-room Amish schools, he said, the blackboard was always positioned on the northernmost wall. This helped teach young children which way was north. As an adult, he said, remembering which wall had the blackboard on it and which way the schoolhouse faced allowed him to identify north and successfully navigate his stomping grounds. As a sixty-year-old grandfather, he said, I still "think back to my school days and remember which wall had the blackboard on it."

Negative feelings about communicating via digital technologies among participants often overlapped with feelings that the asynchronicity of exchanging voicemails, emails, and text messages created communication gaps that face-to-face communication avoided. Because of their size, cell phones and smartphones could also be concealed on the body and used in private, which church leaders feared would lead to sinful behavior and break families apart.

Floyd informed me that much "phone" communication today actually takes place through voicemails. It is uncommon that an Amish individual can be reached at home with a phone call, because the phone resides

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outside in an outbuilding, unless prior plans are made. Even much of the church's business is done through the exchange of voicemails. From Floyd's perspective, this is not a good thing. He believes that a voicemail is a performed monologue—not much different from an email—in which someone might feel inclined to say something about someone that they would not have the courage to say if the conversation occurred face-to-face in real time. Floyd's wife, who sat in on our interview, expanded on this, saying, "You may say something about someone else or characterize him or her unfavorably in a way that you would not if you were speaking face-to-face." These sentiments were shared by many other participants as well.

A number of individuals believed that these communication gaps occurred especially during the exchange of text messages. According to participants, these were dangerous for two reasons. First, participants found that texting resulted in a temporary, artificial courage to say something that would not usually be said. According to Timothy, a bishop, cell phones were bad because they made it easier to spread rumors, gossip, and stretch the truth. "You might not say these things to someone's face because you are not anonymous," he said. Similarly, Calvin, a bishop from a different settlement, said there had been issues with married men texting young women who were not their wives. His biggest fear was that cell phones and smartphones could tear the family apart. For the most part, divorce was unheard of in Amish communities. Many participants echoed Calvin's fear that mobile devices could lead to divorces for this reason. Because these devices were small and could be tucked away in a pocket, people could send messages without it being visible to others, who typically would hold them accountable in such situations. According to Calvin, it could "result in one person hiding in one corner of the house and one in another." He thought that this could lead to a lack of separation between the Amish and the rest of the world, where divorce and infidelity were much more common. I asked if he believed that such technologies could also tear the community apart. He said, "as is a family, so is a community."

According to Jacob, a minister in Calvin's settlement, the main problem with smartphone adoption was with young people. The concern was that cell phones made it possible for people to say something via text that they wouldn't say face-to-face. According to Jacob, the church leaders preached and taught that the Amish should be separate from the world to protect

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themselves from the lust of the flesh. The internet, he felt, was of the world, so they preached against it.

Because of these negative feelings about networked digital technologies, some participants associated the internet and computers symbolically with the devil. In articulating this association, it was sometimes referred to as the *mark of the beast* or seen as "a forerunner of it." The mark of the beast, described in the Bible, identified someone as being coupled with the anti-Christ and against God. According to Revelation 13:13–18,

> And [the beast] performed great and miraculous signs, even causing fire to come down from heaven to earth in full view of men. Because of the signs he was given power to do on behalf of the first beast, he deceived the inhabitants of earth. He ordered them to set up an image in honor of the beast who was wounded by the sword and yet lived. He was given power to give breath to the image of the first beast, so that it could speak and cause all who refused to worship the image to be killed. He also forced everyone, small and great, rich and poor, free and slave, to receive a mark on his right or on his forehead, so that no one could buy or sell unless he had the mark, which is the name of the beast or the number of its name.
>
> This calls for wisdom. Let the person who has insight calculate the number of the beast, for it is man's number. His number is 666.

Participants who associated networked digital technologies with the mark of the beast believed that the "world's system" was moving in a direction where it was increasingly impossible to buy or sell without using electronic media, specifically the internet. This led to questions about whether or not the internet was the mark of the beast. This caused much consternation because, according to Christian doctrine, anyone who received the mark of the beast "drinks the wine of God's fury, which has been poured full strength into the cup of his wrath" (Revelation 14:10).

Jacob thought that the internet was a forerunner of the mark of the beast. "If we depend on it so much, are we going to be able to say no? We cannot enter heaven, according to the Bible, with the mark of the beast. The cell phone is the first step of it." Technologies "are status symbols"; according to Jacob, "What is high status among men is an abomination to God. . . . Cell phones lead to lust and temptation for fallen beings, and we are all fallen beings. This is why the Amish seek a separation from the world."

Jacob believed that mobile devices were dangerous because they amplified lust for worldly things, and following this lust would work to sever

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people from their creator. In his community, they also had issues with inappropriate texting, Jacob said. For him, this is evidence that the internet is "of the world" and a precursor to the mark of the beast. In Bishop Levi's community, the idea that the internet was the mark of the beast was "common thought," but people still used it. This caused him "a sadness" because he preached and taught against the adoption of these technologies, yet sometimes it went "in one ear and out the other." "We know we don't want it, but we know we have it," Levi said. Like other church leaders, he also thought that texting made infidelity more likely. Based on these beliefs, his approach to technology adoption was "to shun the temptation that leads to sin first." For him, this meant shunning the technology that made sin easier to access, given his belief that people are inherently sinful.

Thus, church leaders saw asynchronous electronic media messaging as dangerous for two reasons. First, they thought that disembodied communication (through digital technologies) produced gaps in understanding for message senders and receivers. Second, the ability for mobile devices to be concealed on the body produced an environment where "inappropriate," or lustful, communication could occur between unmarried individuals, which compromised their moral standards and could result in divorce and the separation of family members. In both these cases, digital technologies were seen as detrimental for individual mental health and the creation and maintenance of community bonds. Sometimes this signaled to church leaders that the internet should be classified in terms of the mark of the beast. To use it signaled an outright disobedience to God and marked an individual as incapable of receiving God's ultimate favor. In this way, digital technologies were dangerous because they were seen as capable of severing ties between an individual and his or her God.

Participants also found the ability to copy and forward text messages and voicemails, sometimes without the sender ever knowing about it, particularly distressing. In a few cases this functionality was seen as useful for the maintenance of close-knit bonds. For the most part, however, participants felt a loss of control over communications that became easily removed from the sender's body and especially those that could be duplicated and travel across space quickly. According to Timothy, a bishop, the late-night parties attended by Amish youth now get started and end via text message. Oftentimes alcohol is served at such parties, and many attendants are under the legal drinking age. If the police show up, he said, a text message is

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sent around, and people will scatter. Timothy has had meetings with the police about this. Furthermore, if someone in the local community makes a "mistake," the word travels quickly. "If there's any problem anywhere, within five minutes, everyone knows." In his mind, the fact that cell phones can easily and quickly forward messages through space makes it possible for people to gather at parties where people do things that are counter to Amish spiritual beliefs and escape them without consequence. He also thought that it was detrimental to community bonds to spread information that could damage someone's reputation so quickly and without providing proper context.

At the same time, Timothy demonstrated for me how the ability to copy and forward messages could be used for good. On a snowy January afternoon, I stopped by his workshop. I introduced myself and asked if he had time to answer a few questions. Timothy was extremely jovial and answered my questions enthusiastically with a smile. Conversation flowed smoothly, and he asked me a few questions too. He was surprised to learn that I had never received a song over voicemail from a friend. He informed me that this was a common practice among members of his peer group. When I told him that I had absolutely no experience with the practice, he promptly stood up and retrieved the cordless landline phone from his office. He called home to access his voicemail so that he could demonstrate what he was talking about. Over the speakerphone, he played me two of his favorite songs that friends had forwarded to him. He liked them so much that he saved them for future listening. He sang along as we listened to the songs. They were very motivational, beautiful, and uplifting tunes. The most memorable feature of one song was the melodic yodeling of a female vocalist. The other song's lyrics spoke of letting go and allowing God to make plans for our lives. To my untrained ear, the gospel music sounded like it came from the 1970s or 1980s and had Southern bluegrass influences. I asked Timothy how the person who started forwarding these songs acquired them. He said, usually, non-Amish taxi drivers played gospel music on their car radios. He supposed someone probably recorded it with their cell phone while in a taxi and then played it for a friend over his or her voicemail. That individual, then, would have added a verbal greeting before the song and forwarded it to other friends. In this case, Timothy was very pleased with the ease and efficiency with which one could forward an enjoyable song to friends to share. This was a rare case in which participants

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reported feeling good about the ability to copy and forward disembodied, asynchronous messages quickly using networked digital technologies.

John, a minister, had a more common reaction to this functionality. He told me a story about a compromising photo of a young woman that was forwarded to others via email. This experience had lasting negative repercussions for her as an individual as well as for her family and community. According to John,

> There was a young Amish gal, who was photographed participating in . . . what I would consider to be a totally unacceptable activity. The photograph was taken by her friend. The friend was then going to send the photograph to another friend except they put it into the wrong email address. That photo was then sent to the wrong person and then that person emailed it to me and asked, "What is going on? What is this Amish girl doing involved in this activity? If I understand it correctly, the Amish faith frowns on this type of behavior." Once the picture was taken by a cell phone or smartphone and sent, it was out of her control. And the other Amish person who had that photo, it was also totally out of their control—not retrievable. That photo of her is now out in the world and she can't get it back. This may not have an immediate impact on a person's life, but later a person grows up, gets married, changes their convictions. They may have children and they are trying to instill values and convictions in them and yet here comes this picture back. The kids may say, "How can you tell me not to do that? Here is this picture of you doing that. This is you."

Curious, I had to ask what the activity was, but John would not say. "If that would be my daughter, though, I would be deeply ashamed for her," he conceded. He also told me "it was not fornication." For him this event was especially problematic because it reflected poorly on the girl's family and community, not just the individual engaged in the behavior. John reflected on a lesson that he had given to a group of young people the previous week, which he thought applied to this scenario.

> What I just tried to explain to young people this past Sunday was: You as an individual, the life that you live, has an effect on your name. Who people see you . . . the type of person people see you as. But it goes beyond you as an individual. What you do with your life also has an effect on your family's name. And it has an effect on the church. It has an effect on the community. So, we can choose to do selfish things and only think of ourselves but we can't . . . we should not do that. Because to do otherwise and shed a bad light on our family, our loved ones, our church community. . . . It's selfish. I just look at it as selfishness.

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John's feelings indicate, according to his worldview, that the body is the ideal site of control for both everyday actions and interpersonal communications. Control over these individual-level actions and communication choices have significant family- and community-level consequences. For John there is a clear connection between one's individual actions, communication medium choices, and group-level identity. This also has broader political ramifications for Amish social formations and structures. According to Amish perspectives, maintaining a strong and consistent cultural identity helps strengthen internal networks across which essential resources and information flow. Maintaining strong internal networks, they think, allows them to remain separate from—or less dependent on—the outside world.

For John, the body was clearly the communication medium on which maximum control could be exerted. As noted by other participants, offloading communication onto technological media was reported to cause anxiety and stress. In this case stress seemed to come from message senders relinquishing control over their communication when they sent messages quickly across space. In these less than ideal circumstances, facial features, live reactions, and intended recipients could neither be immediately perceived nor guaranteed. For participants, everyday choices about communication media were tied to significant group-level implications as reputation and identity signaled deference to Amish organizational structures and beliefs. This symbolism has broader political significance because it helps maintain strong close-knit networks within the Amish community over which the information, support, and resources necessary for life in today's world flow. Importantly, such resources enable the Amish to retain cultural autonomy and resist the pull of the outside world and the logic that produces profits for high-tech capitalists.

In doing the work of learning about Amish perspectives, I became aware of circumstances constraining and affording my own face-to-face communication with people in Amish communities. I knew that face-to-face communication would be the primary channel through which I would learn from the Amish, but I had no idea how many different factors would come into play to facilitate or prevent these conversations from occurring. It was my goal to talk to as many Amish church and business leaders as I could. Often, however, icy roads stood in the way of my recruiting new participants. I worked around it as best I could, but the weather played its part. Many other more mundane circumstances contributed to the facilitation or

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deterrence of face-to-face conversation, including air temperature (something about the freezing air outside and the warm air inside seemed to make people pleasantly verbose), family obligations (when I did not have a caretaker for my pets, I could not leave home), hunger (conversations often flowed well when hungry bodies ate together and died out when people were hungry), exhaustion (late night conversations were sometimes cut short so I would not fall asleep at the wheel driving home), illness (sitting in close proximity with a person whose body is obviously infected by a virus also seemed to shorten conversations), and injury (driving many hours in an old car with bad suspension had disturbing results on my lower back, which required time to heal before sustaining another long-distance drive). The seemingly mundane task of planning and coordinating a physical meeting with my participants was a significant and real barrier to the process of communicating with and learning from them. Sometimes it was harder to convince my potential conversation partners that this was more worthwhile than it was for me to drive hours through snow and ice to be able to talk with them. In short, these factors made me acutely aware of how the means and ends of my communication with people in Amish settlements were connected, and, specifically, which circumstances yielded fulfilling results and which did not.

As a result, when I heard Amish participants discussing face-to-face communication as a medium that inherently required both biological and spiritual elements for optimal functioning, I could relate. From a *physical* standpoint the body needs a comfortable place to converse with other bodies. The body should not be hungry, malnourished, in pain, or tired, among other things. From a *spiritual* standpoint, the body needs time for rest and introspection; it needs guidance and motivation for asking and answering questions; and it needs to feel in control, rooted and understood, among other things. Furthermore, in my conversations with them, the Amish highlighted the explicit connections between these two modalities. These connections seemed to fuel Amish social life and gave them a distinct sense of fulfillment that agreed with their religious values.

FARMING AS HOLISM

It is commonly known that farming has been a venerated profession among the Amish since their sixteenth-century beginnings in Europe. Only in the past thirty years or so has farming experienced a significant decline, in terms

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of the number of people who engage in it as a primary profession. Enthused about a possible revival of farming, Perry, a minister and business owner, thought that there may be opportunities popping up that would allow people to get back into farming in his settlement. There are more Amish farmers there today than a few years ago, he said. Despite a macrolevel trend that has resulted in a flourishing industry of small (nonfarming) businesses in the area, he thought that the growing popularity of organic produce markets in the general population has helped more Amish people make the move back into farming. Perry said that he had two nephews who were taking on the home farm and one or two more who were buying farms. This, he believed, was an indicator that opportunities currently existed for young men who wanted to pursue farming as an occupation. His enthusiasm suggested a desire for a return to the venerated way of life of his forefathers through agricultural work, which he believed provided families with physical and spiritual nourishment.

There was a difference, however, in the type of farming done today versus that done by his forefathers, according to Perry. One of his nephews, for example, was interested in hydroponic farming. On a tour of Amish businesses in Lancaster County, Pennsylvania, in 2013, I visited such a farm, which produced Bibb lettuce for Whole Foods grocery stores. The farmers used electricity to circulate water and rotate plastic columns where the plants grew (figure 7.1). When a business was lucrative and fit within the Amish lifestyle in one Amish community, it was likely to be imported into other Amish communities as well. It seemed that hydroponic farming has been one example of this.

Many business owners with whom I talked were nostalgic for their farming heritage. As a hobby, one man collected antique Amish farming equipment, and he invited me to an annual event that he organized every year where members of the Amish community used the old equipment to depict (mostly for tourists) the way farming used to be done. It is at this event where photographs for local "Amish life" postcards are usually taken. They are commonly sold at the visitors bureau and in tourism-oriented retail shops in the area. Actual farming, even among the Amish, has now become much more high-tech, according to the collector.

Kenneth, who owned a woodworking business, told me that he now mowed hay for fun. He saw it as a "monotony breaker." He turned twenty acres of his eighty-acre farm over to his son and twenty to his son-in-law,

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Figure 7.1
Lancaster County Amish hydroponic Bibb lettuce farm.

who both work in the workshop for him. These young men farm all eighty acres, and they sell the crops that they harvest. "We consider farming a hobby," Kenneth informed me. When his son wanted to grow fall crops during the workshop's busiest time of year, Kenneth objected. "We have to acknowledge our bread and butter," he said. According to Perry, still today "there is probably no more honorable a profession than being a farmer. You're creating good nutritious food for people who want to eat, and everyone wants to eat." These sentiments indicate that being close to nature and producing something of value are still esteemed by the Amish because they yield distinctly tangible and connected spiritual, physical, and social rewards.

In the process of talking with Amish people for this book, I also gained a deeper appreciation for farming. Many days, as I drove to talk with members of Amish communities, the director of a local historical museum accompanied me. He grew up on a nearby farm and patiently introduced me to various agricultural conventions, processes, and machines that were

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common on farms in the area. One day, he and I went together to interview ninety-one-year-old retired farmer Martin. While we were sitting at Martin's kitchen table, he told us that he loved being a farmer, and it was all that he had wanted to be his whole life. Martin remembered that being in farming during the Great Depression was an advantage for his family over the other (non-Amish) families that he knew who lived in town. During the Great Depression, his family farmed tomatoes. They would pick three acres of tomatoes by hand. I was informed that this was commonly referred to as truck farming because the tomatoes would be picked up and taken to a local canning factory. This arrangement was eventually displaced when refrigerated trucks became readily available, because they could bring vegetables to the Midwest from places like California with longer growing seasons.

Martin went to school as a child with non-Amish children. There were only three Amish church districts in the area when he was young. At the time of our visit, there were thirty. He remembered that his family always had enough to eat. In school during lunchtime, though, he recalled that there was a little girl who asked if anyone had anything left over because all she had to eat was a small biscuit. Looking back, he recalled that there was always enough to give a little bit away to people who did not have anything. This obviously made an impression on him, because he could describe the events and emotions from eighty years ago effortlessly. He thought that living in the country meant that they were often better off than those who lived in the city because they could feed themselves.

He remembered being content staying on the farm, for what today would seem like extremely long periods of time, without leaving. At that time there was neither an opportunity nor an expectation for them to leave. Today, Amish people travel into town more frequently and travel the continent for vacation. (One person I met took his family via boat to Europe for vacation.) When Martin was young, though, his mother did not go to town to get groceries. Instead, he said, a peddler would come to their house, and Martin's mother would give him a chicken in exchange for some basic supplies.

Martin also thought that when everyone farmed, there was a much smaller discrepancy (even within the Amish community) between the haves and have-nots. When businesses started popping up out of the cornfields, people started making more money, and some made much more than others. When everyone farmed, it seemed that each family had about the same resources, according to Martin. Back then people were dependent on each other to acquire what they needed for daily life. This, Martin thought,

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helped connect members of the community together in ways that do not happen as often today.

I learned a lot from the historical museum director during our conversations in the car. He found it humorous that I grew up in the Midwest and liked to eat healthy foods but knew basically nothing about how that food came into existence. I did not grow up in a city and have always had relatives who garden, but I knew embarrassingly little about how a farm worked. I felt pretty confident about my ability to recite the appropriate health food buzzwords—"buy local," "eat grass fed," "organic," "free range," "sustainably farmed," "non-GMO." During our conversations, though, I realized how ignorant I was about the story behind the food that I consumed on a daily basis. I started to understand that at the point of sale—a grocery store, a co-op, a restaurant, or even a farmer's market—it was too easy to overlook the (rather miraculous) journey that the food had taken to make it to the shelf. Additionally, it seemed, the people who actually grew and raised the food were unnecessarily erased from such experiences. It occurred to me that for too long I was unaware that there was a nontrivial gap in my understanding of how the food system—one vital to every human being's survival—actually worked. Coming to this realization raised many questions about my ability to make ethical choices about something as mundane as food. I began to wonder what similar gaps existed in my understanding of communication systems today and what ethical implications these might have. Interestingly, although it may be common for us to see food as separate from communication processes, among the Amish (and perhaps rural non-Amish), food is seen as central and intricately tied to daily work and social life. When time is not spent growing food, for the Amish, breakfasts and dinners (and lunches for many) are opportunities for the family to gather daily in the home and talk to one another. It is nearly always seen as a component of spiritual education through mealtime devotions and after-church gatherings. One minister told me that the afternoon meal on Sundays, which is hosted in a member's home and served by the family, is just as important for members as the church service before it.

During our time in the car together, the historical museum director, who was a retired college instructor, tolerantly described to me what it took to raise enough hogs to make a living, and how much land one needed at a certain cost per acre to make a return on an investment. In one of my most memorable farming tutorials, he described to me how he learned to sow seed corn from his father. He said that his father would use his finger

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and point to the knuckle to tell him how deep to plant the seed. He said he still remembered the smell of fresh soil after the plow had turned it over so that the seeds could be planted. According to him, we have to remember that "soil is a living thing. We must nurture it and it will nurture us."

Though he was proud of his Irish heritage, this gentleman's family story is similar to many Amish, he said. His family also had a small working farm, which they eventually sold because it became impossible to make a living on the small parcel of land—the same reason why many Amish people have left farming and started small businesses. In our conversations, he recalled fondly his time growing up on the farm but noted some disturbing changes in how large-scale farms operate today. While driving around the countryside, he pointed out that many of the animals were now required to live indoors so that the farmer could prevent the spread of disease and better control what the animal ate. He believed strongly that this was unhealthy and unnatural for the animals and that farms in this area were quickly becoming more like factories, where the people who owned them and worked them only had weak connections to the land and what it produced. Farm owners often did not live in the area or even in the state, he said. Over the past forty years he had seen local, small-scale farms that had produced a livelihood for families for generations be absorbed into large-scale factory-like operations that aimed to produce low-quality crops for amorphous, anonymous masses.

Although it saddened him that large factory-style farms meant that fewer individuals had intimate connections to the soil, he was more concerned about the environmental implications of this disturbing trend. He said,

> Urban people are disconnected from the farmland on which they are dependent for their own survival. . . . This is the tragic result of a failure of imagination. If we don't pay attention to erosion or the killing of farmland, at some point we may not be able to feed ourselves. Now, however, farming is a factory. We must nurture the soil because it nurtures us. Place has always been a part of who we are. Today, though, we have to be reminded of it. This is why the Amish are a good case study. If you didn't grow up farming, you don't know what that means. . . . The Amish are more into place than we are. During the era of flourishing small-scale family farms, the home was the center of business. Now business is the center. When farming got too expensive, the Irish and English moved away to find jobs. The Amish stayed home and dealt with it locally. In the rest of the world, people go away somewhere else to work. For the Amish

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> they stay home. Instead of asking what opportunities are there for me in the city, they stay and ask what does the local community need. In going away, we become divorced from the soil. This is a tragedy. When we feel that place is interchangeable, we lose connection to the ground itself. We don't realize that the soil nurtures you. It becomes part of you and you become part of it in a literal sense. . . . The vegetables you grow, the cattle and hogs you raise on the ground, it all becomes part of you in a physical sense. People don't realize the loss of that who live in an urban setting. They get divorced from the soil and from the land and from what is important, but the Amish are in tune with that.

This made me think differently about something that Noah had said to me a few years earlier. In a conversation about cell phones and smartphones, he said, "Today's generation is the most connected, disconnected generation yet." At the time, I thought he simply meant that people were connected to technologies but not necessarily to each other. Years later, now that I know him better, I also think he meant that people had become disconnected from the "what is important" that the historical museum director talked about—the place and the soil that sustains us not only physically, but socially and spiritually. Implicit in Noah's view of "what is important" is a comprehensive, connected sense of spiritual, social, and physical health that is directly dependent on nature. For the Amish (and likely other non-Amish farming families), this is accompanied by a feeling of being rooted and devoted to the place where your father, mother, and grandparents lived—a place that sustained them, too. Amish social life in many ways is organized to foster spiritual and social health through maintaining a closeness and dependence on the natural world, which they believe that God designed and provided so that people may responsibly sustain themselves. Being *connected* intimately to the place and soil that sustains them provides a sense of fulfillment that spans both physical and spiritual realms for members of Amish communities. It is clear that doing the work of producing food requires daily engagement with the natural world, and these efforts yield spiritual rewards, which the Amish believe could only artificially be divorced from physical efforts.

AS TIMES CHANGE: MEDIUM CONTROL AS SOCIAL AND SPIRITUAL HOLISM

As already noted, through a series of economic changes over the past few decades, many Amish farmers have been forced to start small businesses.

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Oftentimes, these are still based out of the home, so the entire family can be part of the economic unit and close bonds among family members are developed and sustained. Though many people today maintain beautiful vegetable gardens, the Amish increasingly buy food in stores and restaurants. Although farming and maintaining an intimate tie with the soil remain central to ways of imagining Amish life, for more and more people, daily labor takes place in workshops, factories, retail stores, and offices.

Despite this trend, I observed a number of ways in which people organized their surroundings so that connections between the earth and their daily work were tangible and spiritually enriching. For example, because Amish people conventionally opted for horse and buggy transportation, many fed and cared for horses, which required outdoor chores—not to mention the outdoor ride itself in cold or warm temperatures.[1] In more conservative communities, to avoid "high" creature comforts, buggies do not have tops, which ensures exposure to the elements. Without electricity, windows in the summertime are left open, filling homes with the sounds of birds, locusts, and bullfrogs instead of air conditioners, televisions, or popular music. Having clean laundry in the closet depends on the weather; it has to be dry outside to hang clothes without an automatic dryer. Filling the stove with wood to heat the house in the winter requires trips out into the cold to gather wood. Even an electric saw powered by solar panels requires the sun to shine. In these ways and many others, despite changes to the economy, Amish life maintains a tangible connection between everyday work, nature, personal fulfillment, and spiritual enrichment.

Indeed, many people in nonfarming professions reported organizing their work life to foster connections among physical work, family members, and their appreciation of nature and place. They reported doing this because it was beneficial to their spiritual health. They reported working alongside their family members, which helped maintain bonds through the participation in a family-oriented, collocated economic unit. Ninety-one-year-old Martin helps answer phones in his daughter's fabric shop. Sam enjoys having his wheelchair-bound father join him at work in his furniture-making workshop, where his wife manages the office. Noah helps his wife run a tourism-oriented retail shop and café on days when he is not working at his construction company. Kenneth's wife does his bookkeeping, and his son and son-in-law work in his woodworking shop. Sarah works in a furniture showroom and retail shop owned by her family. Her

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son is in charge of marketing, her husband manages the operation, and she helps customers find what they are looking for. Dennis built a successful construction company over the past thirty years. Its daily operations are now taken care of by his three sons. Ben, the office manager at a company that sold millions of dollars' worth of product a year on an auction website, worked for his cousin, who owned the company. These are only a few of the family members I spoke with who reported still working together to produce income and resources despite no longer being in agriculture-based professions. David, a bishop, told me that it was important to be surrounded daily by people who remind you of your values. Despite the Amish's moving off the farm, working closely with family has undoubtedly continued to accomplish this goal.

Even owners of larger-scale Amish businesses reported believing that the culture of a work environment nurtures the spiritual health of employees. Sam, owner of a successful furniture-making workshop with forty-five employees, thought that his main goal in life was to create a work culture where people felt comfortable and enjoyed working. He wanted to create a "good Christian" environment where people could make an honest living. In our first meeting, he told me about his business. He said, "There's always someone who can beat you on price." His (non-Amish) competitors would seduce potential clients by whisking them away on private jets to Colorado for hunting trips. When the same clients would ask what he could offer them, he would say, with a smile, "Come on down . . . I'll take you on my private jet. It's pulled by a horse." He refused to cut costs if that resulted in a poor-quality product. He also refused to market his products based on the premise that he was Amish. Instead he wanted his products to sell based on their own merits and offered clients the best service and the best quality at the best price. The day that I was there, I talked with his wife, his office manager, who said they would be turning away a big job for a hotel chain because they simply had too much business. There were no frills in Sam's organization, but it was far from unsophisticated.

Sam told me that he decided to start his own business after working for a number of years as a lead mechanic at a large-engine repair shop. He worked alongside three other non-Amish mechanics. In the workshop, they had a radio that played popular country music most days. He was not fond of the beat and the lyrics of the music. Even though he thought that country music was supposed to be less vulgar than other types of popular

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music, he realized that it contained immoral lyrics that did not align with his beliefs. This really bothered Sam. One day, he went to his boss and told him that he did not want to say why, but he was submitting his resignation. Sam's boss was upset. Sam was one of his best employees. Sam's boss asked for an explanation, saying, "You at least owe it to me to tell me why you want to leave." So Sam told him it was because of the music on the radio in the workshop. His boss said that he would fix it and went out and removed the radio from the workshop.

Understandably, this made Sam's coworkers upset. Not only was the music that they liked gone, but their boss apparently cared more about Sam's wishes than their own. His colleagues were upset with him for not coming to them first. He told them that he had intended to submit his resignation, not to have the radio taken out. They told him that they would have preferred that he come to them and discuss the problem before he went to the boss. "We would have worked it out and not played the music," they said. They did not know how he felt. He realized that he had made a mistake. Sam stayed and worked there another two years and remained friends with the other mechanics. When I asked him what specifically he thought was so dangerous about the music, he said, "When I heard the music it became a part of me. I couldn't take that part of me away."

At that point he started his furniture business because he wanted to create a Christian environment where people felt comfortable working. At this he has been very successful. He has had low turnover and a waiting list of people who want to work there. He told me that he attracted the best local employees because he provided good benefits, including profit sharing, production bonuses, health insurance, paid holidays, and vacation. Because 2013 was a very profitable year, his employees each got $3 to $4 per hour more than usual due to his profit-sharing policy. He said, "My accountant told me I'm crazy, but he respects what I'm doing."

Sam introduced me to some of the management philosophies that he believed really contributed to creating an environment that provided for people physically as well as spiritually. For him, there was a distinct difference between an organization's *purpose* and its *mission*. An organization's purpose, according to Sam, is "what inspires us. It's what grips our hearts," he said. "It is the answer to the question, 'why do you do what you do?'" An organization's mission, on the other hand, "is more practical. It is the answer to the question, 'what do you do?'" For Sam, his passion drove his

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daily approach to business. He worked to encourage his workers' eternal salvation. For him, this came before everything else. "There's no lasting value to anything else," he said.

He also sought to create an environment where solutions to problems came from the workers themselves. "I want people to feel comfortable coming to talk to me, but I also want to make sure I am the least missed person in the company. There are dads, sons, and daughters who have dedicated their lives to this business. If I have a heart attack, I want to make sure the business can carry on and everyone is taken care of." Every Monday morning, Sam meets with his lead employees. The meeting starts with a devotional. Then members of his team voice any concerns they have. Every month, all employees gather to participate in a similar meeting. On these days, Sam's wife has lunch catered. The devotional, he said, "set the tone for the meeting so that it won't end up in shouting." He uses an inspirational illustration to make people think. Then there is a prayer, and the meeting starts. The devotional, Sam said, helps people remember the organization's purpose—why they do what they do. It is important, he said, to infuse it into every aspect of the employees' work. Sometimes the young women were bashful, so they would write their ideas down and drop them on Sam's desk before the meeting. They did not need to write their names. He said that everyone really enjoys the monthly meetings. They make people feel like they are in control, belong to the community, and are valued and heard. From a management perspective, he also found these meetings to be invaluable. Many things that made a meaningful contribution to the organization came out of those meetings, he said. Sam cited their profit-sharing program as well as a number of proposals for "better, quicker ways of doing things" as examples off the top of his head.

In talking with Sam, I realized that the way in which the historical museum director had described an individual's relationship with the soil—that it became a part of you, and you of it—was strikingly similar to Sam's feelings about the music that he did not like in his job as a mechanic. He said that the immoral and vulgar lyrics of the music became a part of him that he could not take away. Just as the soil from the land was seen as part of the body, the words, images, and stories to which Sam was exposed were described as part of his soul. He felt so strongly about this that he eventually quit his job and worked to create an environment that he thought would provide for its employees' physical and spiritual needs by working

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to create an organization where the culture reflected Amish values. In this way, he was able to create a sanctuary for Amish living that made use of some technology for the enhancement of the business but resisted the negative impacts of digital capitalism on peoples' lives. Namely, his business resisted adopting strategies that that would uproot individuals, separate minds from bodies, and separate bodies from each other and nature. He also worked to make each person feel creative and offered them opportunities to exercise their creativity to improve the work process.

Sam's father was a farmer, but when the economy changed, he developed a business that utilized the resources that he found in his area and provided for people in his family and community. He thought that it was very important to appreciate "the unique gifts each person had been given" and "act as a good steward" of the resources and skills that God had given him. He told me that he did not believe in ownership. On judgment day, he believed, he would have to provide an account of what he did with the resources that God had provided. He also told me that he and his wife were completely different people, which was good. "If they were the same, it would make one of them unnecessary." He truly believed that it took a team who respected each other's differences and valued their unique skills to create the type of environment that provided for their physical needs and nurtured their souls. For him these two goals—to provide for physical and spiritual nourishment—were not easily separated from one another. They were connected parts of the same whole.

In participants' minds, farming held a certain idealized status because it organized life in a way where human efforts served a dual function: it made the connection clear that working to provide the fuel necessary for life also helped foster spiritual growth by bringing individuals into direct contact and making them dependent on each other and nature—God's creations. Despite a macrolevel exodus from farming, Amish participants still reported believing that maintaining the tangibility of the connection between work that produces both physical nourishment and spiritual nourishment was empowering to them. From Amish perspectives, then, the body as the medium for face-to-face communication was seen as inherently "a part of" the physical and cultural environment in which it was embedded. To perform according to one's calling as an extension of God's will, from an Amish perspective, it was best to be embedded in an environment where human efforts were useful and respectable and the

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images, sounds, and stories filling the environment reflected spiritually edifying values.

To illustrate this connection further, John, an Amish minister, explained to me that the ease that digital technologies brought to communication was actually a disadvantage to their communities. In fact, he thought that effort, not ease in communication, worked to strengthen internal bonds and protect the community's cultural autonomy. After he told me that "nothing can compare to face-to-face communication," I asked him to articulate what he thought was lost from face-to-face engagement during a phone conversation. His response was, "There's not the total connection between two people over the phone like there is face-to-face." I shared with him an observation from my own life working at a university. In the university, people typically send emails to get work done. I said, "It's just so much easier for people to email." In response to this he said, "Well, there's one key word that you shared with me that is not always best and that is *easier*. It's easier to call you on the phone. It's easier to text you, but easier is not always better."

To describe his viewpoint in more detail, he used a cooking analogy. John continued,

> It is easier for a woman to just open up a can or open up a box, but that cannot compare in any way with a home-cooked meal or a cake or dessert or baked bread made from scratch. My wife . . . I am very, very blessed. Because my wife is a great baker, she is a great cook, she's a great seamstress, she's a great homemaker . . . all that stuff. But when she bakes bread, when she is kneading the dough, she is praying for the people that are going to eat that bread. Now, you cannot get that from a loaf of bread from the store or from a bakery . . . a commercial bakery. And that is an expectation that I would not have when I go to buy a loaf of bread from a bakery or get a loaf of bread from a friend. But with the knowledge that my wife has been praying for the special people in her life—it just makes it a little more special.

The fact that John used a cooking analogy helps tie together points made earlier in this chapter. He identified a meaningful connection between his wife's physical *work* and creativity in nourishing her family and the spiritual act of praying for them. It is clear in doing so that he sees value in maintaining a connection between the act of providing physical nourishment and spirituality. Indeed, for him, when these are intricately bound together, life is simply more authentic, meaningful, and beautiful. His wife's work,

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which was required to make this happen, is a deep expression of her care for family. There were alternatives that could make her work easier, but they would privilege the value of efficiency instead of effort. Seen from a holistic point of view, effort, not efficiency, conveyed love for others, provided physical and spiritual fulfillment, and strengthened family bonds.

In this way, I found that Amish people believed that face-to-face communication had real implications for the protection of their cultural autonomy over time. They thought that actively choosing not to use digital technologies (some did not use them at all, and some used them only for certain reasons) helped preserve a slow pace of life that kept connections between physical creation and spirituality tangible in the performance of relatively mundane daily activities. This helped maintain strong bonds of mutual support within their community while reinforcing Amish cultural identities as separate from the outside world. When physical creation and spiritual edification are directly connected to the land and soil on which they depend, it produces a sense of holism for individuals where everything is inherently and visibly tied together: the weather, God, livestock, cultural values, the quality of food on the dinner table, and their daily labor. For the Amish, it is easy to look around and see how one area of life has a direct impact on the other.

Utilizing the human body as the primary mode of communication, according to Amish perspectives, allowed individuals to maintain control over their culture and way of life in a world where they believed that powerful governments and corporations would be happy to fill the void if they did not. The particular communication affordances of the human body necessitated small-scale social and economic configurations that for the Amish emphasized holism, simplicity, spirituality, a slow pace of life, tradition, and heritage. As a result of placing limits on mediated forms of communication, a sanctuary exists that resists the individualizing influences of surveillance and control through corporate and political advertising. In contrast to most information work today, Amish intellectual and professional pursuits were part and parcel of a way of life in which people were at peace, had a purpose, and were rooted and known. These are indeed the facets of Amish culture that they thought empowered them most.

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8

COMMUNICATING STRATEGICALLY FOR AMISH EMPOWERMENT

This book has explored the praxis of a group of people who consciously use technologies to create a dynamic social and cultural sanctuary to protect individuals from the negative impacts of high-tech capitalism. This project builds on the ideas of Shoshana Zuboff by illustrating how a group of people who are motivated by religion and spirituality build ideological space for living according to their own will and moral codes. It also reflects the philosophies of technology outlined by Albert Borgmann and Don Ihde. The Amish see technologies that mediate their relationships with others and the natural and spiritual worlds as ethically and morally nonneutral. Furthermore, they work creatively to understand the mechanics of these technologies to use them to manifest the fulfillment of their own moral and ethical goals. For them, it involves limiting and controlling digital technologies, which act as bridges that connect them to a social world governed by insatiable, amorphous authorities who use the public to enact their own will: the regulation of people's behavior to ensure consistent financial gain. In so doing, the Amish are able to make use of our global economic system to acquire the resources that they need to live but avoid becoming a pawn in the digital capitalists' ruthless game.

Additionally, this book shows that communication infrastructures can act as configurable political tools that facilitate or stifle the empowerment of localized communities. In particular it illustrates the importance of collective action in empowering communities that wish to configure their communication systems at the grassroots level so that they may fulfill shared goals and values. The Amish are particularly illustrative on this front, because they work locally to make rules about which digital technologies are acceptable for adoption and use from the ground up. In this way, local values, rituals, and ambitions guide the configuration of networks. As a result, the Amish have established modes of communication that connect them to the global information economy to accomplish their

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economic goals, yet remain disconnected when infrastructure owners and programmers seek to lure them into dependence on the state or to fuel individual desires for conspicuous consumption. In this way, the Amish use grassroots network configuration as a tool for associating with centralized powers without being dominated by them. This allows them to calibrate their connection to the outside world for their own advantage, not that of the government or the global media and technology industries.

This book has explored specific Amish strategies for controlling digital technologies so that they are used to fulfill indigenous values and protect Amish cultural autonomy in a hyperconnected, global social world. Today, Amish people use formal and informal rule-making processes for the adoption of digital technologies, in which decisions are made publicly and communally (see chapters 3 and 4). Instead of simply consuming easily accessible content or artifacts aimed at distraction or improving user efficiency, they rely on a venerated tradition of *making* to repurpose and create new sociotechnical artifacts and assemblages that offer functional ways of communicating while protecting their cultural autonomy from external influence (see chapters 5 and 6). For them, distraction, ease, and efficiency are not desirable characteristics in communication. Effort, for them, shows care and respect.

Guided by a preference for holism in daily living, the Amish prefer face-to-face communication over other media available today. This, they believe, strengthens local social networks and makes the connections among people, nature, and God more visible (see chapter 7). Together these strategies work to protect individual spiritual health, local close-knit bonds, and the reproduction of Amish religious traditions and communities in a world where the Amish are increasingly in contact with, and dependent on, outsiders for their own survival.

This research extends the literature on Amish technology use by showing how established procedures are being adapted for the adoption of digital technologies, something not yet widely studied. Instead of viewing the Amish as reacting to seemingly uniform forces of modernity, this analysis found that a technology's value can be assessed only by looking at how the community of users define value to begin with. It is not presumed that all groups of users define value in the same way. Thus, Amish sociotechnical change is brought about by local actors who operate within a complex, dynamic, and interactive environment constrained in various ways by historical, political, religious, cultural, geographic, and external forces.

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Each of these forces is capable of exerting disproportionate force on the shaping of public sentiment, knowledge, and values and on the adoption and use of digital technologies at a given moment. A consistent or uniform view of modernity that in some way must be reacted to by the Amish, as has been identified in previous research, is incompatible with this perspective. In noting the interdependent and dynamic social forces behind the creation of digital technologies and their roles in our society, we must also consider and investigate what kinds of values, ideologies, and norms (often emphasizing efficiency and profits) are being embedded, and perhaps purposefully obfuscated, in the design of the devices that we use daily to conduct work and connect to one another.

For the Amish, a robust set of shared formal and informal rules works to ensure that digital technologies are used in ways that empower the Amish to fulfill their goals. Contrary to fears reported by some people I talked with, adopting new digital technologies in Amish ways may in fact strengthen Amish culture, not bring about its demise. The social constraints in place in Amish communities today seem to carry as much weight as material technological affordances, if not more so, in determining the use and adoption (or not) of new communication tools. *Whether* or not one can access a digital technology is less concerning than *how* one uses it in context—though efforts are documented that show that designed precarity, or making it difficult to use a digital technology, is useful in guiding behavior. Indeed, a focus on socialization and training throughout the life cycle also helps reproduce Amish worldviews and reinforce Amish identities. Additionally, I saw that there are many procedures, not just proper use of technology, in place to help keep the community together. These include small-scale church services located in the home; the time for lunch and fellowship with neighbors and family after the service; a shared origin story, heritage, language, and common values; or even just the appearance of common values. All these are symbols that show allegiance and deference to the Amish church. In this way, technology was but one aspect of social life that helped define dynamic and evolving boundaries that separate the Amish from non-Amish. By communicating allegiance to their collective, participants reported feeling empowered because they felt rooted, known, and part of a group whose members shared a purpose.

The Amish case study also calls into question techno-utopian philosophies that believe that the democratization of computers and global

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connectivity will bring about a more egalitarian "global village" where inequalities are diminished and free access to information emancipates the connected. From an Amish viewpoint, just the opposite is true. Global connectivity makes people independent of one another, yet dependent on large-scale, centralized institutions such as corporations and the government for their own survival. Empowerment for the Amish comes from dependence on a strong-tie network of individuals who are well-known and share the same values. Together, they seek independence from corporations and centralized governments and work to create interdependencies among people locally on a small scale.

Similarly, global connectivity is seen as capable of drawing isolated individuals into closer contact with an anonymizing mass culture through the assimilation of ideas, values, beliefs, and practices. When an individual becomes assimilated into mass culture, according to Amish views, his or her spiritual, social, mental, and physical well-being is at stake. For them, digital technologies represent a channel for this kind of assimilation. As such, an increasing dependence on digital technologies raises stress and anxiety levels by speeding up the pace of life but reducing the amount of fulfillment that one gets from it. By drawing individuals' minds into a virtual world, minds and bodies become separated from and ignorant of the natural environment that sustains them. This is particularly problematic for Amish creative work, where technology is seen to divorce the means from the ends, which diminishes human fulfillment and weakens a connection to a tangible reality.

This book also contributes to the evolving theoretical literature on critical making by exploring Amish making practices as mundane, everyday activities with macrolevel political implications. As in chapters 5 and 6, critical making can be seen as both an everyday activity and a significant symbolic and functional component of a larger strategy for the protection of cultural autonomy in an increasingly high-tech, networked world. Unique Amish creations such as plain computers and strategies for internet management act as workarounds that symbolize shared beliefs and values and mark the cultural boundaries of Amish communities. In privileging creation over consumption, ideological foci remain local instead of remote. In this way, Amish patterns of critical making contribute to an overarching political strategy for Amish empowerment.

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Although Amish approaches are indeed unique, there are lessons that we can all learn from understanding why and how the Amish work so hard to maintain a safe place for their way of life to thrive. By making decisions about technology adoption based on morals and ethics, the Amish lean in to points of conflict and struggle because they help them maintain their cultural and ideological autonomy in the digital age. Guided by their morals, they have been working to maintain separation from the outside world for centuries. Today, because of changes in the economy, these communal decisions have become more complex and difficult. These complexities are not to be avoided. Instead, they help provide the social structure and support that is needed to create space for everyone in their communities to dwell peacefully. The Amish are very aware that individuals, on their own, do not stand a chance against the power of Big Other.

Even though it is becoming nearly impossible to opt out of today's high-tech capitalist society and economy, it does not mean that one cannot work to retain sovereignty over one's life and authorship of one's experience. By making similar decisions about digital technology usage, we can also create opportunities for inward reflection that allow us to develop our own will and share it with others close to us. This gives rise to the bottom-up development of grassroots collectives of different kinds whose members share values and are connected by strong-tie social bonds.

These groups stand to provide essential sanctuary for their inhabitants and help protect the characteristics of human beings that separate us from machines. They promote the exercise of creating instead of consuming and cherish the spontaneity and connection that come with the free, nonviolent expression of emotion. They protect individuals from the negative experiences of living in high-tech capitalism, such as feeling like time is speeding up, our work is increasingly invisible, we are divorced from those close to us, and we are out of touch with nature. Instead of feeling stressed, anxious, and lonely, efforts should be made today to help employees and users feel creative, known, and rooted as well as having a purpose and a part of the natural world. When the human experience of living and working in digital spaces today is considered, these efforts require a move toward holism by highlighting, not erasing, the connection between human action and its meaning. It requires seeing people as more than the data that they leave behind and more than the purchasing decisions that they will make in the future.

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If we employed the strategies in use among the Amish, how would our daily, lived experiences change? Could we work with our family members, colleagues, friends, and neighbors to come up with shared ethical goals? If so, how would we go about making decisions about digital technology use that enable us to better fulfill those goals? Could we lean into the conflict and struggle that come with making these hard decisions? If making instead of consuming were our first inclination, how might our communication tools be different? These are open and guiding questions that require future reflection and collective empathy. In seeking to answer them, we must be aware that some members of society have more power than others to make decisions at odds with centralized powers. In Amish communities, people generally have a voice and are encouraged to participate in governance. This is not necessarily true outside Amish communities. Thus, localized social change should emphasize a spirit of caring through the recognition of difference and a dedication to bringing about inclusivity and equality.

Using Amish approaches to strengthen community in the non-Amish world might include pursuing more opportunities for face-to-face conversation with people we care about, rather than sending them an email, a text, or a tweet. Doing this would likely also help us feel less lonely, uprooted, or fragmented. Maybe over time, the effort we put into creating opportunities for face-to-face interactions would help us feel more integrated into a community that shares our values and supports each member. If we establish formal and informal decision-making procedures among our families and communities, perhaps we will be held accountable (and hold others accountable) for utilizing digital technologies in ways that make us feel good over the long term, instead of in temporary moments of weakness or crisis. Finally, by acknowledging and nurturing our innate abilities to create instead of our abilities to consume, perhaps we would find fulfillment in producing things that people need, close the spiritual and mental gap between human bodies and the natural world that sustains them, and make a political move that shifts power out of the hands of corporate and governmental owners and programmers of global information networks and, instead, into the hands, minds, and bodies of everyday people.

This exploration of the Amish has shown that much is at stake for people in taking such measures. To rectify social injustices that are part and parcel of our social structures today, we must first look inward, create reflective space for the development of our will, share it with those close to us, and

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work to protect these spaces from the invasion of dominant logics. Through our participation in the market as consumers, we should request that technology designers reveal and limit their efforts to surveil and control users. As participants in the democratic process, we should also elect informed policy-makers who can regulate these organizations and infrastructures by restraining the exertion of their will at the expense of the public's.

Although the strategies outlined here have large-scale political implications for the sustainability of communities, they are primarily intended to ensure the well-being of individuals. Amish approaches to digital technology adoption emphasize holism, simplicity, spirituality, a slow pace of life, tradition, and heritage in the daily, lived experience of human beings. Because of the limits placed on mediated forms of communication, the individualizing influences of corporate advertising and intellectual and professional pursuits are less capable of disrupting a way of life in which people feel at peace, that they have a purpose, and that they are rooted and known. Although these are facets of Amish culture that they believe empower them the most, perhaps they have broader relevance for Amish and non-Amish people alike.

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APPENDIX: NOTES ON FIELD SITES

After Ohio and Pennsylvania, Indiana is home to the third-largest population of Amish in North America. The northern Indiana settlement has a suburban feel and is home to an ideologically diverse group of Old Order Amish. Among the settlement's 163 church districts, many are quite "change minded" or progressive. Others, however, are more conservative or "tradition minded." The Montgomery/Odon settlement, on the other hand, is more rural, homogeneous, and tradition minded, being of Swiss (and mixed) origin rather than German, as is the case in northern Indiana (Amish America Website 2015; Nolt and Meyers 2007).

POPULATION

According to 2019 calculations by the Young Center for Anabaptist and Pietist Studies, the Elkhart/LaGrange/Noble counties settlement was the third largest in existence after Lancaster County, Pennsylvania, and Holmes County, Ohio. The Montgomery/Odon settlement is the seventh largest settlement overall and the fourth largest in Indiana.

Table A.1 Indiana Settlement Population Statistics (Amish Population Profile 2019)

Indiana Amish Settlement	Total Population	Number of Church Districts
Elkhart/LaGrange/Noble	25,660	192
Montgomery/Odon	5,290	29
Field site total	30,950	221
Indiana total	57,430	405

Fifty-four percent of Indiana's total Amish population live in the Elkhart/LaGrange/Noble and Montgomery/Odon settlements combined.

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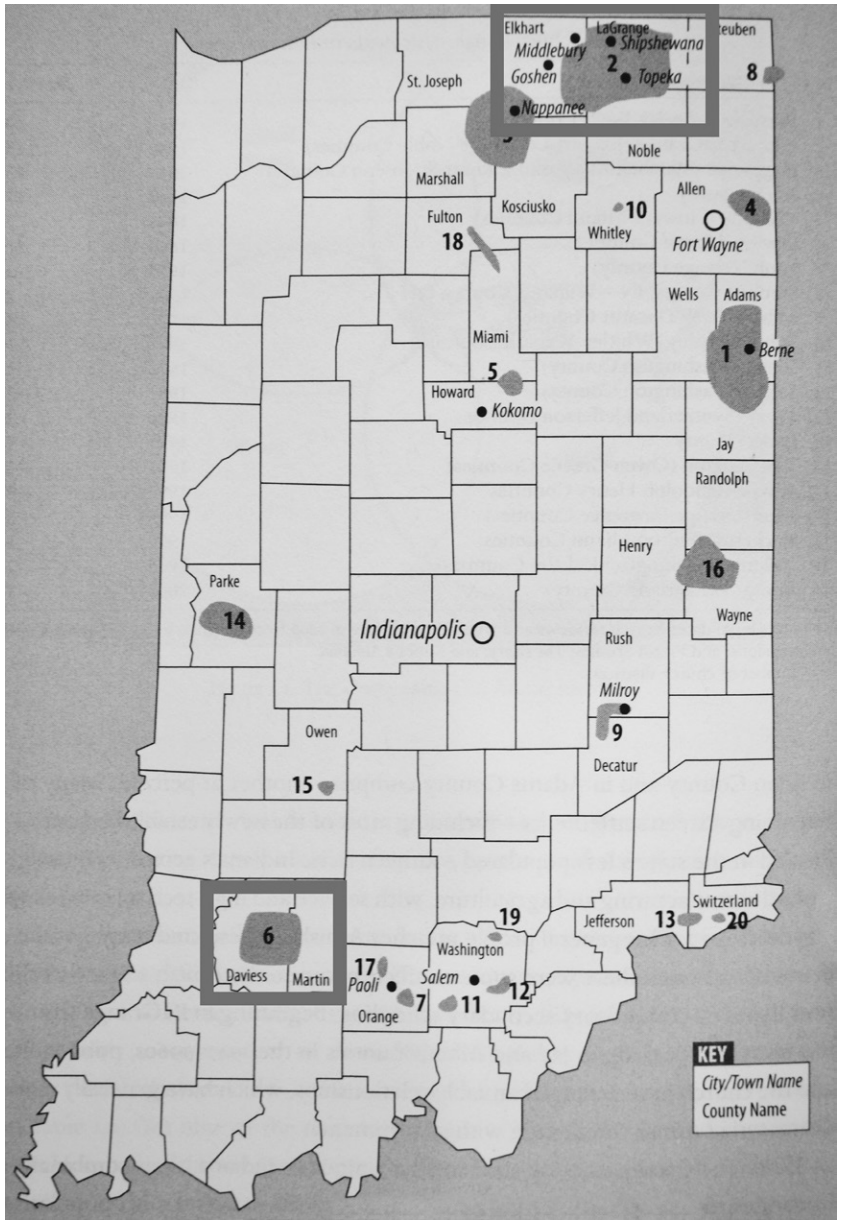

Figure A.1
Map of Indiana Amish communities as of 2006 (Nolt and Meyers 2007). The numbers on the map refer to how old the settlements are: 1 is the oldest and 20 the youngest.

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ELKHART/LAGRANGE/NOBLE, NORTHERN INDIANA SETTLEMENT

The northern Indiana settlement is in many ways more suburban in feel than other Amish communities around the country. Partly this is because it draws millions of tourists each year to its museums dedicated to Amish heritage and culture and local shops. Village crafts, foods, and furniture shops and the sprawling Shipshewana Flea Market are common destinations for tourists seeking to experience what regional tourism bureaus have dubbed "Amish Country" (Nolt and Meyers 2007). In the settlement, Amish people account for about half of all residents, giving the area a clear association with its Amish population. According to Steven Nolt and Thomas Meyers, Goshen College[1] scholars who have extensively studied the Indiana Amish, it is seen as something of a center for thought development and leadership among Indiana's Amish communities. On the Indiana Amish School Committee, for example, the chairman has always been from the Elkhart-LaGrange settlement, as has the state's representative to the National Amish Steering Committee (Nolt and Meyers 2007).

Amish settlers first arrived in north central Indiana in 1841, when federal troops started forcing Native Americans out of the region and encouraged white farmers to settle there. This "first wave" of Amish settlers came to Indiana from the eastern United States. Their ancestors had come from Europe in the 1700s (Nolt and Meyers 2007). According to Nolt and Meyers, the first two decades of Amish settlement in the area were rife with tensions. Local memories pitted tradition-minded residents who moved there from Pennsylvania against change-minded Amish who came there via Ohio. These two groups split in northern Indiana in 1857, about ten years before a large-scale schism divided the Old Order Amish from more progressive sects in north America more broadly. In a nearby settlement to the southwest, Nappanee, other Amish and Mennonite immigrants were also moving in, bringing with them altogether different sets of ideas and philosophies. Among the various groups that settled here, there is a certain friendliness, including intermingling of young people and intermarriages. According to Nolt and Meyers, a key feature of the identities of northern Indiana Amish is "a shared history of churchly moderation that has discouraged conflict over Ordnung" (2007, 77). All church districts, they say, maintain fellowship with one another. They cite consensus and forbearance as a point of distinction among the northern Indiana Amish. When Old Order individuals recount stories about contentious times in their history,

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"the moral typically lies in the wisdom of staying with the church's mainstream majority" (2007, 78).

The northern Indiana Amish have a history of resisting division. This is particularly noteworthy because there is no insistence on ideological uniformity or unanimity across districts. Over the years, the northern Indiana Amish have retained a congregationalism that places the authority of Ordnung in district hands (Nolt and Meyers 2007). This means that church districts respect one another's views and differing convictions, and, at the same time, they guard their own congregational prerogatives. According to Nolt and Meyers, modification of Ordnung in regard to technology has not occurred in any uniform way. For example, some churches started using bottled gas for heat in the 1920s, whereas others did not accept it until the 1990s (Nolt and Meyers 2007). Although Ordnungs differ drastically in the settlement on technology adoption, this has not led to a break in fellowship or the birth of new, more progressive affiliations. According to Nolt and Meyers, this "polity pattern" contrasts sharply with other Amish settlements such as Lancaster, Pennsylvania, where all the bishops gather twice a year at a meeting presided over by the senior bishop to approve or reject changes that percolate up from below (Nolt and Meyers 2007). "Northern Indiana Amish are familiar with what they term the 'Lancaster system of administration' and are quick to distinguish themselves from it, emphasizing their own inclinations toward district authority," according to Nolt and Meyers (2007, 80).

Although northern Indiana Amish seek to maintain community through cooperation and mutual respect for each other's differences, they also express misgivings about the degree of Ordnung diversity, according to Nolt and Meyers. The growth and size of the settlement magnify the array of opinions found here. Although each district has authority over its own Ordnung, "the reality is less random than such a characterization implies," Nolt and Meyers report (2007, 80). Districts make decisions while considering their neighbors' opinions. According to Nolt and Meyer's observations, "Church members are aware of the contours of diversity and can locate patterns of practice" (2007, 80).

Increasing population and land prices in the area, as has been the trend across the country, have brought about a move out of agriculture and into other industries for northern Indiana Amish workers. As early as the 1930s, a few men in northern Indiana started working in local factories, at area

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grain elevators, and—in a few cases—driving delivery trucks. Churches granted such exceptions when no other work was available and required that the men drive only when they were on the job and working for a non-Amish employer who owned the vehicle, according to Nolt and Meyers. Farming became less and less viable throughout the twentieth century as the population in the area grew and Amish and non-Amish alike continued to buy available land, which sent land prices soaring. By the 1980s, farming was the profession of only a minority of Amish men in northern Indiana, and factory work was the norm. This stands in contrast to most all other Amish settlements, according to Nolt and Meyers, where Amish-owned home businesses, employing family members and neighbors, have been the alternative to farming.

MONTGOMERY/ODON, DAVIESS COUNTY, SOUTHERN INDIANA SETTLEMENT

Although Indiana Amish in general have received less attention from scholars than those in other states, the settlements within Indiana have also received varying degrees of attention. The Daviess County settlement, though relatively large in terms of population, has not been as comprehensively studied as other settlements in Indiana, including smaller ones. In contrast to early Amish settlers in the northern Indiana settlement, individuals who started the southern Indiana Amish settlement moved there via a "second wave" of immigration directly from Switzerland. The Daviess County settlement, established in 1869, is considered an "offshoot" of the Allen County settlement, which was established in 1844 (Nolt and Meyers 2007). According to Nolt and Meyers, the ethnic differences between the Amish who descended from German immigrants and those who descended from Swiss immigrants produce a number of cultural differences that are still visible today. For example, in Swiss settlements, the dialect is not considered Pennsylvania German or Dutch. Instead, speakers there refer to their native language as Swiss. According to reports, it is quite difficult for a Pennsylvania Dutch speaker to understand a Swiss speaker when they are talking quickly. Additionally, the preferred buggy style in Swiss settlements does not have a top, and in non-Swiss areas it typically does. In many ways, the Swiss Amish are more tradition minded and conservative than their German counterparts. Although the Daviess County settlement was founded by Swiss Amish from Allen County, Nolt and Meyers describe it

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as in ethnic transition, or "both Swiss and not-Swiss" (2007, 64). According to Nolt and Meyers, over the course of the twentieth century, the degree of Swiss ethnicity has waned in Daviess County, despite a general sense there that the settlement is still Swiss related. As evidence of this, Nolt and Meyers cite a notable language drift in which Pennsylvania German has replaced Swiss, and enclosed buggies were adopted in 1990.

Historians have also cited the discovery of a document called "Rules and Order of the Church" from 1871, two years after the establishment of the Daviess County settlement, which consists of 13 agreed-upon church standards for the new congregation. These standards include rules against adultery, participating in elections, holding a public office, or working for the government. Additionally, members were not permitted to use the power of the government to protect themselves. They were to trust in God and not in the power of man for their own protection (Stoll 1997). Other standards include encouraging members to hold each other accountable for their sins and helping each other to be financially responsible and independent of the outside world. Tobacco use was expressly prohibited at church services. Additionally, members were required to first take care of people within the community before offering money or goods (via loan or otherwise) to the outside world. With regard to clothing, a rule states that members should "not go along with the world in their pomp and pride from one style to another, for the world will pass away with its lust as John says" (Stoll 1997, 28). Holidays should be observed solely to honor God, if they are observed at all. If a church member marries outside the church, he or she cannot be a member of the church and can be reinstated only if he or she brings the marriage partner back into the church or if they separate from each other. Finally, it is not allowed to go to a "show" or "fair" where the "spirit of the world has dominion" (Stoll 1997, 30).

The first Amish settlers in Daviess County were small-scale farmers who had cows to milk for home use and butter to trade for groceries, a few pigs, hens, and a field of wheat to grind into flour and sell as a cash crop (Stoll 1997). Photodocumentarian Bill Whorrall reported his personal experiences conversing with members of the Amish community in Daviess County while compiling stories and photographs for a 2003 book documenting life in the settlement. According to his observations, farming has undergone changes over the years. He says that turkeys are no longer free ranging; a company has them in long metal buildings. Wheat is rarely

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grown because it is too difficult to compete with operators out West. Dairy farming, though, seems to be making a comeback. Farming in the region is now rarely the sole source of income (2003). The increasing number of people working off the farm is likely the most important change in life among the southern Indiana Amish, according to Whorrall. In describing life at the beginning of the twenty-first century for the Amish in Daviess County, Whorrall writes,

> Very few Amish men live a life exactly like their fathers'. But it is still a rural life in a flat country, with a few rolling hills and woods, and creeks that shelter deer, rabbit, squirrel, coyote, muskrat, fox and mink. It is cows, corn and buggies. It is sickness, being kicked by a horse, knowing that you have neighbors around you who will help you. It is being separate from the world of obsession with material goods and fancy. (2003, 4)

Businesses emerging in recent years include "door shops, window shops, cabinet shops, craft shops, furniture shops, furniture restoration shops, upholstery shops, trim shops, bakeries and restaurants" (Whorrall 2003, 23). Other local enterprises make items such as noodles, candy, and bonnets or run auctions, according to Whorrall. In these types of work arrangements, people can work from home while still holding the outside world at bay, Whorrall says. My interviews reported that many Amish men are now working in the construction business in Daviess County. According to Whorrall's observations, working outside the community on a construction crew "can put the community member into English culture. This can erode the network of community and can lead to problems" (23). Small home businesses allow people to make a living while remaining in control over access to cultural and ideological influences.

Although Whorrall reported Amish resistance to the building of an Amish-themed tourism industry in the area, one has indeed emerged in recent years. A large Amish restaurant, Gasthof Amish Village, was opened in 1988 and has grown into a hub for tourists visiting the area. According to their website, they offer home-cooked Amish food (Gasthof Amish Village 2019). In 1997 a hotel was also opened on the property. Today, members of the Amish community sell seasonal produce, furniture, crafts, and quilts there. Each September the Gasthof Amish Village hosts a fall festival featuring Amish-made crafts, outdoor cooking, and field harvesting using "Amish equipment and tools" (Gasthof Amish Village 2019). An organized

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Amish community tour is offered through the Daviess County Chamber of Commerce and Visitors Bureau. It includes lunch at Gasthof Amish Village and escorts tourists to a number of Amish-owned craft and variety stores throughout the community (Gasthof Amish Village 2019).

According to the reputable website, *Amish America*, maintained by independent author and scholar of the Amish Erik Wesner, the Daviess County Amish are known for their distinct southern twang and their reputation for friendliness. The Daviess County settlement is located in a rural part of the state, full of dusty roads that turn to mud in downpours, according to Wesner. Small businesses such as furniture shops and construction crews are common here. Weekly Friday night auctions at Dinky's, a sprawling complex of barns and outdoor arenas, are a popular draw for Amish and non-Amish residents alike.

I certainly encountered more participants who were reluctant to agree to interviews in Daviess County as compared to those living in northern Indiana. For me, therefore, it is not surprising that little has been written in recent years about the members of the Amish community who live there. In the early 2000s, Bill Whorrall describes similar experiences during his work conducting a more casual documentation of life there. I feel very lucky to have acquired the information that I did there and hope it contributes to building a fair and respectful understanding of what it is like today to live as an Amish person in Daviess County.

The two settlements studied in this book show how sociotechnical changes are being negotiated in two very different Amish settlements. Technologies such as cell phones, computers, and the internet have been adopted or not in different ways and for different reasons in these Amish communities. These differences point to the socially constructed nature of technology and the mutability of its imprint on our social arrangements. The eventual use, adoption, or rejection of an artifact or a sociotechnical arrangement is shown here to be highly influenced by contexts that have evolved over generations and are influenced by perceptions surrounding ethnicities, power, religious values, and the social networks across which resources and information flow.

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NOTES

CHAPTER 1

1. To preserve the anonymity of the people who shared their experiences with me, I have altered their names and professions and intentionally omitted geographic details about where they live.

2. SEO is an acronym for search engine optimization, which helps websites rank higher in a user's search results on web search engines, making the user more likely to click through to the website.

CHAPTER 2

1. According to Hurst and McConnell (2010), Amish unemployment is generally unheard of.

2. Amish bishops, ministers, and business owners significantly train sociotechnical change to evolve in certain directions. They are not autocratic leaders, however. They curate conversations within their small communities, cultivate the opinions of others, and enforce (church leaders) or test the limits (business leaders) of formal, democratically established rules.

CHAPTER 3

1. There is some evidence to suggest that this could be changing in some communities. I received a text message from a particularly tech-savvy participant in which he reported that his son-in-law had been ordained as a minister. He wondered whether I had learned in my research that more progressive members of the church had started being selected as church leaders. This was not the case. The question is instructive and worthy of future consideration, however. It could be that in the future more and more progressive young men will be nominated by their church to enter the lottery when it is time for church leaders to be chosen. Perhaps it will be presumed that someone with a handle on the current state of the economy and familiar with technology will help the community maintain balance as it navigates changes in profession and technology while remaining true to the Amish religious values and heritage. Also, from an Amish viewpoint, the ultimate selection of a progressive individual in the lottery would indicate God's preference for a more progressive person, should he be chosen.

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CHAPTER 4

1. In this case, the verb *convict* is used to explain one's conviction in belief, not a criminal, for example.

2. *English* is the term used by the Amish to identify any non-Amish person.

CHAPTER 5

1. The name of the company has been changed to protect the identity of participants.

2. The Amish refer to their language as German, though as a fluent German speaker, I can confirm that it bears little resemblance to the language spoken in Germany today.

CHAPTER 7

1. Buggies typically do not have heaters or air conditioners. One woman, however, described heating a bowl of hot water and keeping it between her legs on long winter rides.

APPENDIX A

1. Goshen College is a small liberal arts college located in Elkhart County in the northern Indiana settlement. It was founded on, and remains tied to, an Anabaptist mission.

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REFERENCES

Amish America Website. (2015). *Indiana Amish*. Accessed May 21, 2019. http://amishamerica.com/indiana-amish.

Amish Population Profile. (2019). Young Center for Anabaptist and Pietist Studies, Elizabethtown College. Accessed May 28, 2020. http://groups.etown.edu/amishstudies/statistics/twelve-largest-settlements-2019.

Ashton, K. (2015). *How to Fly a Horse: The Secret History of Creation, Invention, and Discovery*. New York: Anchor Books.

Beachy, L. D. (2013). Give attendance to reading. *Family Life*. October.

Brende, Eric. (2005). *Better Off: Flipping the Switch on Technology*. New York: Harper Perennial.

Borgmann, A. (1984). *Technology and the Character of Contemporary Life*. Chicago: University of Chicago Press.

Castells, M. (2009). *Communication Power*. Oxford: Oxford University Press.

Cong, D. (1992). Amish factionalism and technological change: A case study of kerosene refrigerators and conservatism. *Ethnology 31*(3): 205–241.

Cooper, T. W. (2006). Of scripts and scriptures: Why plain people perpetuate a media fast. *Journal of American Culture 29*(2): 139–153.

Cronk, S. (1981). *Gelassenheit*: The rites of the redemptive process in Old Order Amish and Old Order Mennonite Communities. *Mennonite Quarterly Review 55*(1), 5–44.

DiJulio, B., Hamel, L., Munana, C., and Brodie, M. (2018). *Loneliness and Social Isolation in the United States, the United Kingdom, and Japan: An International Survey*. Kaiser Family Foundation. Accessed May 28, 2020. kff.org/other/report/loneliness-and-social-isolation-in-the-united-states-the-united-kingdom-and-japan-an-international-survey.

DiSalvo, C. (2014). Critical making as materializing the politics of design. *Information Society 30*(2): 96–105.

Duffy, B. E. (2017). *(Not) Getting Paid to Do What You Love: Gender, Social Media, and Aspirational Work*. New Haven, CT: Yale University Press.

Downloaded from http://direct.mit.edu/books/book-pdf/2087088/book_9780262369381.pdf by guest on 06 August 2023

Dyer-Witheford, N. (1999). *Cyber-Marx, Cycles and Circuits of Struggle in High-technology Capitalism*. Urbana, IL: University of Illinois Press.

Eggers, D. (2013). *The Circle*. New York: Knopf.

Ems, L. (2014). Amish workarounds: Toward a dynamic, contextualized view of technology use. *Journal of Amish and Plain Anabaptist Studies 1*(3): 42–58.

Ems, L. (2015). Exploring ethnographic techniques for ICT non-use research: An Amish case study. *First Monday 20*(11), November 2015.

Eubanks, V. (2012). *Digital Dead End: Fighting for Social Justice in the Information Age*. Cambridge, MA: MIT Press.

Eubanks, V. (2019). *Automating Inequality: How High-tech Tools Profile, Police, and Punish the Poor*. New York: St. Martin's Press.

Gasthof Amish Village website. (2019). Accessed May 21, 2019. http://gasthofamishvillage.com.

Geissler, H. (2014). *Seasonal Associate*. Leipzig: Spector Books.

Gray, M. and Suri, S. (2019). *Ghost Work: How to Stop Silicon Valley from Building a New Global Underclass*. New York: Houghton Mifflin Harcourt.

Hatch, M. (2014). *The Maker Movement Manifesto: Rules for Innovation in the New World of Crafters, Hackers, and Tinkerers*. New York: McGraw Hill Education.

Heule, F. C. (2014a). Internet management: How to be successful online without an internet connection. *The Plain Communities Business Exchange*. June.

Heule, F. C. (2014b). Internet management article 2: Finding information on the internet. *The Plain Communities Business Exchange*. July.

Heule, F. C. (2014c). Internet management article 3: Marketing channels and the internet. *The Plain Communities Business Exchange*. August.

Heule, F. C. (2014d). Internet management article 4: Search marketing. *The Plain Communities Business Exchange*. September.

Heule, F. C. (2014e). Internet management article 5: Social media marketing. *The Plain Communities Business Exchange*. October.

Heule, F. C. (2014f). Internet management article 6: Mobile and video marketing. *The Plain Communities Business Exchange*. November.

Heule, F. C. (2014g). Internet management article 7: The big picture. *The Plain Communities Business Exchange*. December.

Hurst, C. E. and McConnell, D. L. (2010). *An Amish Paradox: Diversity and Change in the World's Largest Amish Community*. Baltimore: Johns Hopkins University Press.

Ihde, D. (1990). *Technology and the Lifeworld: From Garden to Earth*. Bloomington: Indiana University Press.

Downloaded from http://direct.mit.edu/books/book-pdf/2087088/book_9780262369381.pdf by guest on 06 August 2023

Kelly, K. (2010). *What Technology Wants*. New York: Penguin Books.

Kraybill, D. B. (1998). Plain reservations: Amish and Mennonite views of media and computers. *Journal of Mass Media Ethics 13*(2): 99–110.

Kraybill, D. B. (2001). *The Riddle of Amish Culture*. Baltimore: Johns Hopkins University Press.

Kraybill, D. B. and Nolt, S. M. (2004). *Amish Enterprise: From Plows to Profits*. Baltimore: Johns Hopkins University Press.

Kraybill, D. B., Johnson-Weiner, K., and Nolt, S. M. (2013). *The Amish*. Baltimore: Johns Hopkins University Press.

Kraybill, D. B., Nolt, S. M., and Weaver-Zercher, D. (2010). *The Amish Way: Patient Faith in a Perilous World*. San Francisco: Jossey-Bass.

Meek, M. (2012). Where Amish snowbirds find a nest. *New York Times*. April 15.

Murphy, R. (2009). *Leadership in Disaster: Learning for a Future with Global Climate Change*. Montreal: McGill-Queen's University Press.

Neriya-Ben Shahar, R. (2017a). Negotiating agency: Amish and ultra-Orthodox women's responses to new media. *New Media and Society 19*(1), 81–95.

Neriya-Ben Shahar, R. (2017b). The medium is the danger: Discourse about television among Amish and ultra-Orthodox (Haredi) women. *Journal of Media and Religion 16*(1), 27–38.

Noble, S. U. (2018). *Algorithms of Oppression: Data Discrimination in the Age of Google*. New York: NYU Press.

Nolt, S. and Meyers, T. (2007). *Plain Diversity: Amish Cultures and Identities*. Baltimore: Johns Hopkins University Press.

Norman, D. A. (2008). The way I see it: Workarounds and hacks: The leading edge of innovation. *Interactions 15*(4): 47–48.

O'Neil, C. (2016). *Weapons of Math Destruction*. New York: Broadway Books.

Petrovich, C. (2013). The internet question: Part 1. *The Plain Communities Business Exchange*. December.

Petrovich, C. (2014). The internet question: Part 2. *The Plain Communities Business Exchange*. January.

Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. London: Simon & Schuster.

Ratto, M. (2011). Critical making: Conceptual and material studies in technology and social life. *Information Society 27*(4): 252–260.

Rosen, L. D., Whaling, K., Rab, S., Carrier, L. M., and Cheever, N. A. (2012). Is Facebook creating "iDisorders?" The link between clinical symptoms of psychiatric

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disorders and technology use, attitudes and anxiety. *Computers in Human Behavior 29(3)*: 1243–1254.

Rheingold, H. (1999). Look who's talking. *Wired 7*(1). Accessed May 21, 2019. http://www.wired.com/wired/archive/7.01/amish.html.

Scott, S. and Pellman, K. (1990). *Living without Electricity*. Intercourse, PA: Good Books.

Sennett, R. (1998). *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism*. New York: W. W. Norton.

Social Security Legislation. (1958). Hearing before the Committee on Ways and Means, House of Representatives, Eighty-fifth Congress, Second session on All Titles of the Social Security Act. June 16, 17, 18, 19, 20, 23, 24, 25, 26, 27, 30.

Stoll, J. (1997). *The Amish in Daviess County, Indiana*. Published by the Author.

Stoll, J. (2013). Staff notes. *Family Life*. November. Aylmer, Ontario: Pathway Publishers.

Tijmes, P. (2001). Albert Borgmann: Technology and the character of everyday life. In Achterhuis, H. and Crease, R. P., eds. *American Philosophy of Technology: The Empirical Turn* (pp. 11–36). Bloomington, IN: Indiana University Press.

Tufekci, Z. (2017). We're building a dystopia just to make people click on ads. Accessed June 21, 2021. https://www.ted.com/talks/zeynep_tufekci_we_re_building_a_dystopia_just_to_make_people_click_on_ads?language=en.

Umble, D. Z. (1996). *Holding the Line: The Telephone in Old Order Mennonite and Amish Life*. Baltimore: Johns Hopkins University Press.

Umble, D. Z. (2003). Sinful network or divine service: Competing meanings of the telephone in Amish country. In Gitelman, L., ed. *New Media, 1740–1915* (pp. 139–156). Cambridge, MA: MIT Press.

Virilio, P. (2006). *Speed and Politics: An Essay on Dromology*. Los Angeles: Semiotext(e).

Wellman, B. (2001). Computer networks as social networks. *Science, 293*: 2031–2034.

Wesner, E. (2010). *Success Made Simple: An Inside Look at Why Amish Businesses Thrive*. San Francisco: Jossey-Bass.

Wetmore, J. M. (2007). Amish technology: Reinforcing values and building community. *IEEE Technology and Society Magazine Summer*: 10–21.

Whorrall, B. (2003). *The Amish Community in Daviess County, Indiana: A Photodocumentation*. Published by the Author.

Winner, L. (1980). Do artifacts have politics? *Daedalus: Modern Technology: Problem or Opportunity 109*(1): 121–136.

Word Processor Keeps Things Simple. (2007). *Farm Show Magazine*, *31*(2): 31. Accessed May 21, 2019. https://www.farmshow.com/a_article.php?aid=20026.

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Wueschner, S. (2002). Economic pragmatism: The Iowa Amish and the vision of communal coherence in late 20th century America. *Essays in Economic and Business History 20*: 215–227.

Yeung, P. (2019). The grim reality of life under Gangs Matrix, London's controversial predictive policing tool. *Wired*. April. Accessed May 28, 2020. https://www.wired.co.uk/article/gangs-matrix-violence-london-predictive-policing.

Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.

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